		DEPARTMENT	ATE OF UTAH OF NATURAL RES F OIL, GAS AND N			FORI			
APPLI	CATION FOR	PERMIT TO DRILL			1. WELL NAME and	NUMBER CWU 1516-24D			
2. TYPE OF WORK  DRILL NEW WELL	REENTER P8	A WELL DEEPEI	N WELL		3. FIELD OR WILD	CAT NATURAL BUTTES			
4. TYPE OF WELL Gas We	ell Coalb	ed Methane Well: NO			5. UNIT or COMMU	NITIZATION AGRE	EMENT NAME		
6. NAME OF OPERATOR	EOG Resou	rces, Inc.			7. OPERATOR PHONE 435 781-9111				
8. ADDRESS OF OPERATOR	East Highway 40	), Vernal, UT, 84078			9. OPERATOR E-MA	AIL gardner@eogresource	es.com		
10. MINERAL LEASE NUMBER		11. MINERAL OWNE			12. SURFACE OWN	-			
(FEDERAL, INDIAN, OR STATE) UTU0282		FEDERAL ( IND)	IAN ( STATE (	) FEE (	FEDERAL 📵 IN	DIAN DIAN STATE (	FEE (III)		
13. NAME OF SURFACE OWNER (if box 12		14. SURFACE OWN	ER PHONE (if box 1	.2 = 'fee')					
15. ADDRESS OF SURFACE OWNER (if box		16. SURFACE OWN	ER E-MAIL (if box 1	l2 = 'fee')					
17. INDIAN ALLOTTEE OR TRIBE NAME	ION FROM	19. SLANT							
(if box 12 = 'INDIAN')	ion) NO 📵	VERTICAL DI	RECTIONAL 📵 HO	ORIZONTAL 🗍					
20. LOCATION OF WELL	FO	SECTION	TOWNSHIP	RANGE	MERIDIAN				
LOCATION AT SURFACE	798 FS	SL 1972 FWL SESW		24	9.0 S	22.0 E	S		
Top of Uppermost Producing Zone	1050 FS	SL 2276 FWL	SESW	24	9.0 S	22.0 E	S		
At Total Depth	1050 FS	SL 2276 FWL	SESW	24	9.0 S	22.0 E	S		
21. COUNTY UINTAH		22. DISTANCE TO NE	EAREST LEASE LIN 270	E (Feet)	23. NUMBER OF AC	RES IN DRILLING	UNIT		
		25. DISTANCE TO NE (Applied For Drilling		AME POOL	<b>26. PROPOSED DEPTH</b> MD: 9374 TVD: 9345				
27. ELEVATION - GROUND LEVEL		28. BOND NUMBER	NM2308		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLIC 49-225				
		AT	TACHMENTS						
VERIFY THE FOLLOWING	ARE ATTACH	ED IN ACCORDANG	CE WITH THE UT	TAH OIL AND (	GAS CONSERVATI	ON GENERAL RU	ILES		
<b>✓</b> WELL PLAT OR MAP PREPARED BY	LICENSED SUR	VEYOR OR ENGINEER	сом	PLETE DRILLING	G PLAN				
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGRE	EMENT (IF FEE SURFA	ACE) FORM	15. IF OPERATO	R IS OTHER THAN T	HE LEASE OWNER			
DIRECTIONAL SURVEY PLAN (IF DI	RECTIONALLY	OR HORIZONTALLY	<b>у</b> торо	OGRAPHICAL MA	Р				
NAME Mary Maestas	TITL	<b>E</b> Regulatory Assistant		<b>PHONE</b> 303 8	24-5526				
SIGNATURE	DAT	<b>E</b> 02/24/2010		EMAIL mary_	maestas@eogresource	es.com			
API NUMBER ASSIGNED 43047509560000	АРР	ROVAL		Sol	ogill				
		Permit Manager							

API Well No: 43047509560000 Received: 2/24/2010

	Proj	oosed Hole, Casing, a	and Cement		
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)	
Surf	12.25	9.625	0	2300	
Pipe	Grade	Length	Weight		
	Grade J-55 ST&C	2300	36.0		

API Well No: 43047509560000 Received: 2/24/2010

	Prop	osed Hole, Casing, a	nd Cement		
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)	
Prod	7.875	4.5	0	9374	
Pipe	Grade	Length	Weight		
	Grade N-80 LT&C	9374	11.6		

# MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

# 1. & 2. ESTIMATED TOPS & ANTICIPATED OIL, GAS, & WATER ZONES:

	CWU 1	515-24D	CWU 1	516-24D	CWU 1	517-24D	CWU 1	518-24D
FORMATION	TVD	MD	TVD	MD	TVD	MD	TVD	MD
Green River	1409	1425	1416	1423	1423	1435	1420	1429
Birdsnest	1725	1752	1732	1743	1735	1756	1733	1747
Mahogany Oil Shale Bed	2317	2364	2328	2347	2341	2379	2331	2354
Wasatch	4658	4731	4678	4707	4698	4758	4691	4723
Chapita Wells	5238	5311	5257	5286	5277	5337	5269	5302
Buck Canyon	5927	6001	5949	5978	5974	6034	5962	5995
North Horn	6595	6668	6616	6645	6634	6694	6627	6660
KMV Price River	6942	7016	6971	7000	7002	7062	6998	7031
KMV Price River Middle	7814	7888	7842	7871	7870	7930	7865	7897
KMV Price River Lower	8607	8680	8630	8659	8654	8714	8650	8682
Sego	9125	9198	9147	9176	9162	9222	9149	9181
TD	9325 9398		9345	9374	9365	9424	9350	9382
ANTICIPATED BHP (PSI)	5091		51	5102		13	5105	

	CWU 1	519-24D	CWU 1	520-24D				
FORMATION	TVD	MD	TVD	MD	TVD	MD	TVD	MD
Green River	1416	1432	1411	1424				
Birdsnest	1730	1758	1725	1744				
Mahogany Oil Shale Bed	2322	2372	2308	2339				
Wasatch	4673	4755	4653	4699				
Chapita Wells	5252	5333	5232	5278				
Buck Canyon	5940	6021	5920	5966				
North Horn	6611	6692	6587	6633				
KMV Price River	6980	7061	6948	6995				
KMV Price River Middle	7847	7928	7817	7863				
KMV Price River Lower	8634	8716	8607	8653				
Sego	9153	9234	9134	9180				
TD	9355	9436	9335	9381		_		
ANTICIPATED BHP (PSI)	5108		509	97				

- 1. Fresh Waters may exist in the upper, approximately 1,000 ft  $\pm$  of the Green River Formation, with top at about 2,000 ft  $\pm$ .
- 2. Cement isolation is installed to surface of the well isolating all zones by cement.

# MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

3. PRESSURE CONTROL EQUIPMENT:

Production Hole – 5000 Psig BOP schematic diagrams attached.

#### 4. CASING PROGRAM:

Casing	Hole Size	Length	Size	Weight	Grade	Thread	Rating Collapse	Rating Burst	Tensile
Conductor	20"	0 – 60'	14"	32.5#	A252			1800 PSI	10,000#
Surface	12 ¼"	0 - 2,300'±	9 %"	36.0#	J-55	STC	2020 PSI	3520 PSI	394,000#
Production	7 7/8"	Surface – TD	4 ½"	11.6#	N-80	LTC	6350 PSI	7780 PSI	223,000#

Note: 12 1/4" surface hole will be drilled to a total depth of 200'± below the base of the Green River lost circulation zone and cased w/9-5/4" as shown to that depth. Drilled depth may be shallower or deeper than the 2300' shown above depending on the actual depth of the loss zone.

All casing will be new or inspected.

## 5. Float Equipment:

#### Surface Hole Procedure (0'- 2300'±)

Guide Shoe

Insert Float Collar (PDC drillable)

Centralizers: 1-5' above shoe, top of its. #2 and #3 then every 5<sup>th</sup> joint to surface. (15 total)

#### Production Hole Procedure (2300'± - TD):

Float shoe, 1 joint casing, float collar and balance of casing to surface. 4-½", 11.6#, N-80 or equivalent marker collars or short casing joints to be placed at top of Price River and 400' above top of Wasatch. Centralizers to be placed 5' above shoe on joint #1, top of joint #2, and every 3rd joint to 400' above the top of primary objective. Thread lock float shoe, top and bottom of float collar, and top of 2<sup>nd</sup> joint.

#### MUD PROGRAM

#### Surface Hole Procedure (Surface - 2300'±):

0' - 2300'± Air/Air mist/Aerated water

or

A closed mud system will be utilized with a gelled bentonite system. LCM sweeps, additions, etc. will be utilized as necessary.

# MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

## Production Hole Procedure (2300'± - TD):

Anticipated mud weight 9.5-10.5 ppg depending on actul wellbore conditions encountered while drilling.

2300'± - TD

A closed mud system will be utilized. A bentonite gelled water mud system will be used to control viscosity w/PHPA polymer used for supplemental viscosity and clay encapsulation/inhibition. Water loss will be maintained at <15cc's using white starch or PAC. Bactericides will be used as needed. Anticipated pH will range from 9.0-10.0. Mud weight will be adjusted as necessary for well control. Deflocculants/thinners will be used as necessary to maintain mud quality. LCM sweeps will be utilized as necessary to control lost circulation and mud loss. CO2 contamination, if encountered, will be treated with lime and gypsum.

### 7. VARIANCE REQUESTS:

Reference: Onshore Oil and Gas Order No. 1
Onshore Oil and Gas Order No. 2 – Section E: Special Drilling Operations

- EOG Resources, Inc. requests a variance to regulations requiring a straight run blooie line to be 100' in length. (Where possible, a straight run blooie line will be used).
- EOG Resources, Inc. requests a variance to regulations requiring the blooie line to be 100' in length. To reduce location excavation, the blooie line will be approximately 75' in length.
- EOG Resources, Inc. requests a variance to regulations, during air drilling operations only, requiring dedusting equipment. Dust during air drilling operations is controlled by water mist.
- o EOG Resources, Inc. requests a variance to regulations, during air drilling operations only, requiring an automatic igniter or continuous pilot light on the blooie line. (Not required on aerated water system).
- o EOG Resources, Inc. requests a variance that compressors are located in the opposite direction from the blooie line a minimum of 100 feet from the well bore. (Air Compressors are rig mounted).

### 8. EVALUATION PROGRAM:

Loas: None

**Cased-hole Logs**: Cased-hole logs will be run in lieu of open-hole logs consisting of the following:

Cement Bond / Casing Collar Locator and Gamma Ray

# MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

### 9. CEMENT PROGRAM:

#### Surface Hole Procedure (Surface - 2300'±):

Lead: 150 sks Class "G" cement with 16% Gel, 10 #/sx Gilsonite, 3% Salt, 2% CaCl<sub>2</sub>,

3 lb/sx GR3 ¼ #/sx Flocele mixed at 11 ppg, 3.82 ft<sup>3</sup>/sk. yield, 23 gps water.

Tail: 135 sks Class "G" cement with 2% CaCl<sub>2</sub>, ¼#/sk Flocele mixed at 15.6 ppg, 1.18 ft<sup>3</sup>/sk.,

5.2 gps water.

**Top Out**: As necessary with Class "G" cement with 2% CaCl<sub>2</sub>, ¼#/sk Flocele mixed at 15.6

ppg, 1.18 ft<sup>3</sup>/sk., 5.2 gps water.

**Note**: The above number of sacks is based on gauge-hole calculation

Lead volume to be calculated to bring cement to surface.

Tail volume to be calculated to bring cement to 500' above the shoe.

### Production Hole Procedure (2300'± - TD)

**Lead:** 135 sks: Hi-Lift "G" w/12% D20 (Bentonite), 1% D79 (Extender), 5% D44

(Salt), 0.2% D46 (Antifoam), 0.25% D112 (Fluid Loss Additive), 0.25 pps D29

(cello flakes) mixed at 11.0 ppg, 3.91 ft<sup>3</sup>/sk., 24.5 gps water.

**Tail:** 905 sks: 50:50 Poz "G" w/ 2% D20 (Bentonite), 0.1% D46 (Antifoam), 0.075%

D13 (Retarder), 0.2% D167 (Fluid Loss Additive), 0.2% D65 (Dispersant),

mixed at 14.1 ppg, 1.28 ft<sup>3</sup>/sk., 5.9gps water.

**Note**: The above number of sacks is based on gauge-hole calculation.

Lead volume to be calculated to bring cement to 200'± above 9-5/8" casing shoe. Tail volume to be calculated to bring cement to 400'± above top of Wasatch.

Final Cement volumes will be based upon gauge-hole plus 45% excess.

# MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

#### 10. ABNORMAL CONDITIONS:

#### Surface Hole (Surface - 2300'±):

Lost circulation

### Production Hole (2300'± - TD):

Sloughing shales, lost circulation and key seat development are possible in the Wasatch Formation.

#### 11. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Upper and Lower Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

# 12. HAZARDOUS CHEMICALS:

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

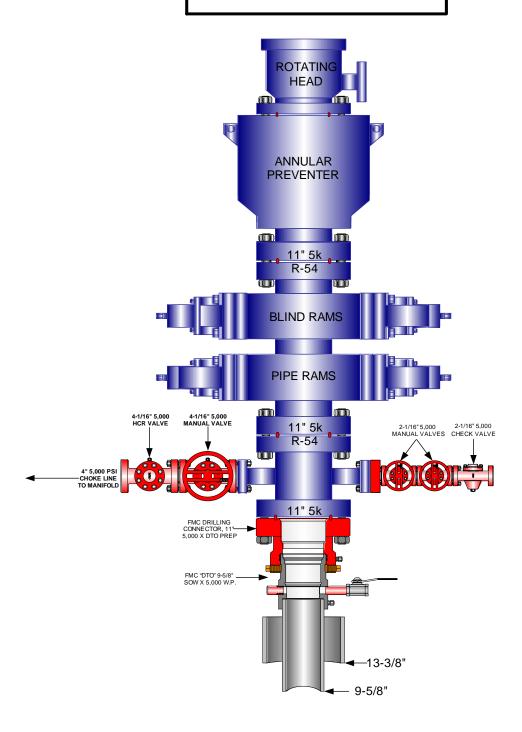
#### 13. Air Drilling Operations:

- 1. Main Air Compressors are 1250 CFM 350 psi with 2000 psi Boosters and are rig mounted.
- 2. Secondary Air Compressors are 1170 CFM 350 psi with 2000 psi Boosters and are rig mounted.
- 3. Minimum setting depth of conductor casing will be 60' GL or 10'± into competent formation, whichever is deeper, as determined by the EOG person in charge. Exceptions must be approved by an EOG drilling superintendent or manager.
- 4. The diameter of the diverter flow line will be a minimum of 10" to help reduce back pressure on the well bore during uncontrolled flow.
- 5. Rat and Mouse hole drilling will occur only after surface casing has been set and cemented.
- EOG Resources, Inc. will use a properly maintained and lubricated stripper head.

(Attachment: BOP Schematic Diagram)

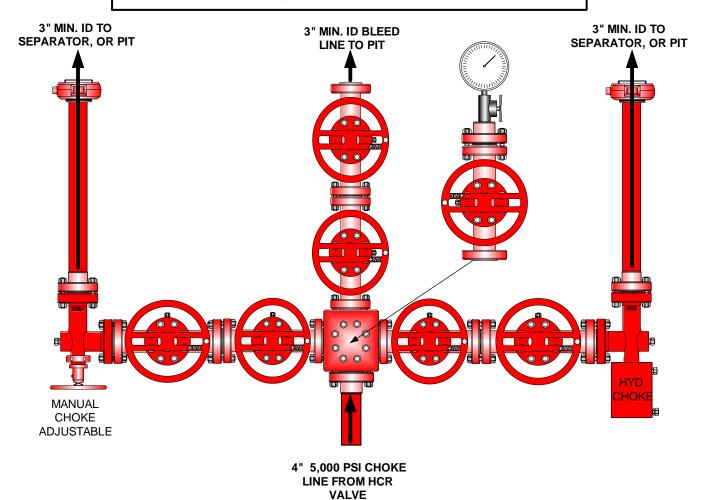
EOG RESOURCES 11" 5,000 PSI W.P. BOP CONFIGURATION

PAGE 1 OF 2



# EOG RESOURCES CHOKE MANIFOLD CONFIGURATION W/ 5,000 PSI WP VALVES

PAGE 2 0F 2



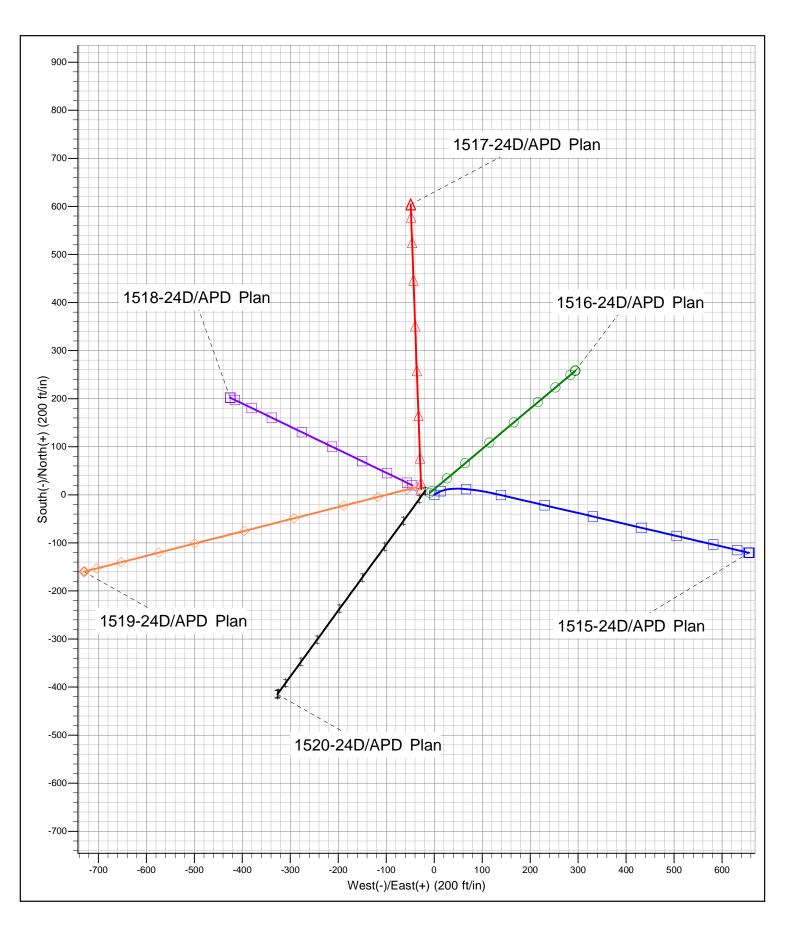
# **Testing Procedure:**

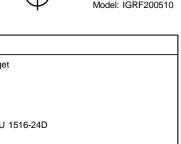
- 1. BOP will be tested with a professional tester to conform to Onshore Order #2.
- 2. Blind and Pipe rams will be tested to rated working pressure, 5,000 psi.
- 3. Annular Preventer will be tested to 50% working pressure, 2,500 psi. Casing will be tested to 0.22 psi / ft. or 1,500 psi. Not to exceed 70% of burst strength, whichever is greater.
- 4. All lines subject to well pressure will be tested to the same pressure as blind and pipe rams.
- 5. All BOPE specifications and configurations will meet Onshore Order #2 requirements.

# CWU 1515-24D, CWU 1516-24D, CWU 1517-24D CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24 T9S, R22E, S.L.B. & M. UINTAH COUNTY, UTAH







Sec	: MD										
	IVID	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0		
3	1133.3	9.50	50.07	1130.4	33.6	40.2	1.50	50.07	52.4		
4	2737.2	9.50	50.07	2712.3	203.5	243.2	0.00	0.00	317.1		
5	3687.2	0.00	0.00	3657.9	254.0	303.4	1.00	180.00	395.7		
6	7000.2	0.00	0.00	6971.0	254.0	303.4	0.00	0.00	395.7	CWU 1516-24E	)
7	9374.2	0.00	0.00	9345.0	254.0	303.4	0.00	0.00	395.7		
					TARGET	DETAILS					
Т	VD +N	N/-S	+E/-W	Northing		Easting		Latitude		Longitude	Shape
D 697	1.0 25	54.0	303.4				40°	1' 1.870 N	109°23		Circle (Radius: 50.0)
	3 4 5 6 7	3 1133.3 4 2737.2 5 3687.2 6 7000.2 7 9374.2	3 1133.3 9.50 4 2737.2 9.50 5 3687.2 0.00 6 7000.2 0.00 7 9374.2 0.00	3 1133.3 9.50 50.07 4 2737.2 9.50 50.07 5 3687.2 0.00 0.00 6 7000.2 0.00 0.00 7 9374.2 0.00 0.00	3 1133.3 9.50 50.07 1130.4 4 2737.2 9.50 50.07 2712.3 5 3687.2 0.00 0.00 3657.9 6 7000.2 0.00 0.00 6971.0 7 9374.2 0.00 0.00 9345.0	3 1133.3 9.50 50.07 1130.4 33.6 4 2737.2 9.50 50.07 2712.3 203.5 5 3687.2 0.00 0.00 3657.9 254.0 6 7000.2 0.00 0.00 6971.0 254.0 7 9374.2 0.00 0.00 9345.0 254.0 TARGET	3 1133.3 9.50 50.07 1130.4 33.6 40.2 4 2737.2 9.50 50.07 2712.3 203.5 243.2 5 3687.2 0.00 0.00 3657.9 254.0 303.4 6 7000.2 0.00 0.00 6971.0 254.0 303.4 7 9374.2 0.00 0.00 9345.0 254.0 303.4 TARGET DETAILS	3 1133.3 9.50 50.07 1130.4 33.6 40.2 1.50 4 2737.2 9.50 50.07 2712.3 203.5 243.2 0.00 5 3687.2 0.00 0.00 3657.9 254.0 303.4 1.00 6 7000.2 0.00 0.00 6971.0 254.0 303.4 0.00 7 9374.2 0.00 0.00 9345.0 254.0 303.4 0.00 TARGET DETAILS	3 1133.3 9.50 50.07 1130.4 33.6 40.2 1.50 50.07 4 2737.2 9.50 50.07 2712.3 203.5 243.2 0.00 0.00 5 3687.2 0.00 0.00 3657.9 254.0 303.4 1.00 180.00 6 7000.2 0.00 0.00 6971.0 254.0 303.4 0.00 0.00 7 9374.2 0.00 0.00 9345.0 254.0 303.4 0.00 0.00 TARGET DETAILS	3 1133.3 9.50 50.07 1130.4 33.6 40.2 1.50 50.07 52.4 4 2737.2 9.50 50.07 2712.3 203.5 243.2 0.00 0.00 317.1 5 3687.2 0.00 0.00 3657.9 254.0 303.4 1.00 180.00 395.7 6 7000.2 0.00 0.00 6971.0 254.0 303.4 0.00 0.00 395.7 7 9374.2 0.00 0.00 9345.0 254.0 303.4 0.00 0.00 395.7 TARGET DETAILS	3 1133.3 9.50 50.07 1130.4 33.6 40.2 1.50 50.07 52.4 4 2737.2 9.50 50.07 2712.3 203.5 243.2 0.00 0.00 317.1 5 3687.2 0.00 0.00 3657.9 254.0 303.4 1.00 180.00 395.7 6 7000.2 0.00 0.00 6971.0 254.0 303.4 0.00 0.00 395.7 CWU 1516-24E 7 9374.2 0.00 0.00 9345.0 254.0 303.4 0.00 0.00 395.7 TARGET DETAILS



# **Denver Division - Utah**

T9S-R22E Sec 24 CWU 1515-1520 24D (Pad B4\_CWU 929-24\_Set 9) 1516-24D

Wellbore #1

Plan: APD Plan

# **Standard Survey Report**

16 October, 2009



Well:

#### **EOG Resources**

#### Survey Report

Company: Denver Division - Utah
Project: T9S-R22E Sec 24

Site: CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9) 1516-24D

Wellbore: Wellbore #1

Design: APD Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

Well 1516-24D RIG @ 5047.0ft (True 34)

RIG @ 5047.0ft (True 34)

North Reference: True

Survey Calculation Method: Minimum Curvature

Database: EDM 2003.21 Single User Db

Project T9S-R22E Sec 24

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)

Geo Datum: NAD 1927 (NADCON Map Zone: Utah North 4301

System Datum:

Mean Sea Level

Site CWU 1515-1520 24D (Pad B4\_CWU 929-24\_Set 9)

Northing: -108,286.80 ft Site Position: 40° 0' 59.108 N Latitude: From: Lat/Long Easting: 2,591,113.75 ft Longitude: 109° 23' 23.438 W 0.0 ft Slot Radius: Grid Convergence: 1.39° **Position Uncertainty:** 

Well 1516-24D **Well Position** +N/-S 0.0 ft -108,262.67 ft 40° 0' 59.360 N Northing: Latitude: +E/-W 0.0 ft 2,591,057.12 ft 109° 23' 24.158 W Easting: Longitude: **Position Uncertainty** 0.0 ft Wellhead Elevation: **Ground Level:** 5,028.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/2/2009	11.28	65.96	52,584

APD Plan Design **Audit Notes:** PROTOTYPE 0.0 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.0 0.0 0.0 50.07

 From (ft)
 To (ft)
 Survey (Wellbore)
 Tool Name
 Description

 0.0
 9,374.2
 APD Plan (Wellbore #1)
 MWD
 MWD - Standard

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	1.50	50.07	600.0	8.0	1.0	1.3	1.50	1.50	0.00
700.0	3.00	50.07	699.9	3.4	4.0	5.2	1.50	1.50	0.00
800.0	4.50	50.07	799.7	7.6	9.0	11.8	1.50	1.50	0.00
900.0	6.00	50.07	899.3	13.4	16.0	20.9	1.50	1.50	0.00
1,000.0	7.50	50.07	998.6	21.0	25.1	32.7	1.50	1.50	0.00
1,100.0	9.00	50.07	1,097.5	30.2	36.1	47.0	1.50	1.50	0.00



Well:

#### **EOG Resources**

#### Survey Report

Company: Denver Division - Utah T9S-R22E Sec 24 Project:

Site: CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9) 1516-24D

Wellbore #1 Wellbore:

Design: APD Plan Local Co-ordinate Reference:

RIG @ 5047.0ft (True 34) TVD Reference: MD Reference: RIG @ 5047.0ft (True 34)

Well 1516-24D

True North Reference:

Minimum Curvature **Survey Calculation Method:** 

Database: EDM 2003.21 Single User Db

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
1,133.3	9.50	50.07	1,130.4	33.6	40.2	52.4	1.50	1.50	0.00
1,200.0	9.50	50.07	1,196.2	40.7	48.6	63.4	0.00	0.00	0.00
1,300.0	9.50	50.07	1,294.8	51.3	61.3	79.9	0.00	0.00	0.00
1,400.0	9.50	50.07	1,393.4	61.9	73.9	96.4	0.00	0.00	0.00
1,500.0	9.50	50.07	1,492.1	72.5	86.6	112.9	0.00	0.00	0.00
1,600.0	9.50	50.07	1,590.7	83.1	99.2	129.4	0.00	0.00	0.00
1,700.0	9.50	50.07	1,689.3	93.7	111.9	145.9	0.00	0.00	0.00
1,800.0	9.50	50.07	1,788.0	104.2	124.5	162.4	0.00	0.00	0.00
1,900.0	9.50	50.07	1,886.6	114.8	137.2	178.9	0.00	0.00	0.00
2,000.0	9.50	50.07	1,985.2	125.4	149.9	195.4	0.00	0.00	0.00
2,100.0	9.50	50.07	2,083.8	136.0	162.5	211.9	0.00	0.00	0.00
2,200.0	9.50	50.07	2,182.5	146.6	175.2	228.4	0.00	0.00	0.00
2,300.0	9.50	50.07	2,281.1	157.2	187.8	244.9	0.00	0.00	0.00
2,400.0	9.50	50.07	2,379.7	167.8	200.5	261.4	0.00	0.00	0.00
2,500.0	9.50	50.07	2,478.4	178.4	213.1	278.0	0.00	0.00	0.00
2,600.0	9.50	50.07	2,577.0	189.0	225.8	294.5	0.00	0.00	0.00
2,700.0	9.50	50.07	2,675.6	199.6	238.4	311.0	0.00	0.00	0.00
2,737.2	9.50	50.07	2,712.3	203.5	243.2	317.1	0.00	0.00	0.00
2,800.0	8.87	50.07	2,774.3	210.0	250.8	327.1	1.00	-1.00	0.00
2,900.0	7.87	50.07	2,873.2	219.3	262.0	341.7	1.00	-1.00	0.00
3,000.0	6.87	50.07	2,972.4	227.6	271.8	354.5	1.00	-1.00	0.00
3,100.0	5.87	50.07	3,071.8	234.7	280.4	365.6	1.00	-1.00	0.00
3,200.0	4.87	50.07	3,171.3	240.7	287.5	375.0	1.00	-1.00	0.00
3,300.0	3.87	50.07	3,271.1	245.6	293.4	382.6	1.00	-1.00	0.00
3,400.0	2.87	50.07	3,370.9	249.3	297.9	388.5	1.00	-1.00	0.00
3,500.0	1.87	50.07	3,470.8	252.0	301.1	392.6	1.00	-1.00	0.00
3,600.0	0.87	50.07	3,570.8	253.5	302.9	395.0	1.00	-1.00	0.00
3,687.2	0.00	0.00	3,657.9	254.0	303.4	395.7	1.00	-1.00	0.00
3,700.0	0.00	0.00	3,670.8	254.0	303.4	395.7	0.00	0.00	0.00
3,800.0	0.00	0.00	3,770.8	254.0	303.4	395.7	0.00	0.00	0.00
3,900.0	0.00	0.00	3,870.8	254.0	303.4	395.7	0.00	0.00	0.00
4,000.0	0.00	0.00	3,970.8	254.0	303.4	395.7	0.00	0.00	0.00
4,100.0	0.00	0.00	4,070.8	254.0	303.4	395.7	0.00	0.00	0.00
4,200.0	0.00	0.00	4,170.8	254.0	303.4	395.7	0.00	0.00	0.00
4,300.0	0.00	0.00	4,270.8	254.0	303.4	395.7	0.00	0.00	0.00
4,400.0	0.00	0.00	4,370.8	254.0	303.4	395.7	0.00	0.00	0.00
4,500.0	0.00	0.00	4,470.8	254.0	303.4	395.7	0.00	0.00	0.00
4,600.0	0.00	0.00	4,570.8	254.0	303.4	395.7	0.00	0.00	0.00
4,700.0	0.00	0.00	4,670.8	254.0	303.4	395.7	0.00	0.00	0.00
4,800.0	0.00	0.00	4,770.8	254.0	303.4	395.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,870.8	254.0	303.4	395.7	0.00	0.00	0.00
5,000.0	0.00	0.00	4,970.8	254.0	303.4	395.7	0.00	0.00	0.00
5,100.0	0.00	0.00	5,070.8	254.0	303.4	395.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,170.8	254.0	303.4	395.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,270.8	254.0	303.4	395.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,370.8	254.0	303.4	395.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,470.8	254.0	303.4	395.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,570.8	254.0	303.4	395.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,670.8	254.0	303.4	395.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,770.8	254.0	303.4	395.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,870.8	254.0	303.4	395.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,970.8	254.0	303.4	395.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,070.8	254.0	303.4	395.7	0.00	0.00	0.00



Well:

#### **EOG Resources**

#### Survey Report

Company: Denver Division - Utah
Project: T9S-R22E Sec 24

Site: CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9) 1516-24D

Wellbore: Wellbore #1
Design: APD Plan

Local Co-ordinate Reference:

 TVD Reference:
 RIG @ 5047.0ft (True 34)

 MD Reference:
 RIG @ 5047.0ft (True 34)

Well 1516-24D

North Reference: True

Survey Calculation Method: Minimum Curvature

Database: EDM 2003.21 Single User Db

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
6,200.0	0.00	0.00	6,170.8	254.0	303.4	395.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,270.8	254.0	303.4	395.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,370.8	254.0	303.4	395.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,470.8	254.0	303.4	395.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,570.8	254.0	303.4	395.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,670.8	254.0	303.4	395.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,770.8	254.0	303.4	395.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,870.8	254.0	303.4	395.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,970.8	254.0	303.4	395.7	0.00	0.00	0.00
7,000.2	0.00	0.00	6,971.0	254.0	303.4	395.7	0.00	0.00	0.00
7,100.0	0.00	0.00	7,070.8	254.0	303.4	395.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,170.8	254.0	303.4	395.7	0.00	0.00	0.00
7,300.0	0.00	0.00	7,270.8	254.0	303.4	395.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,370.8	254.0	303.4	395.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,470.8	254.0	303.4	395.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,570.8	254.0	303.4	395.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,670.8	254.0	303.4	395.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,770.8	254.0	303.4	395.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,870.8	254.0	303.4	395.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,970.8	254.0	303.4	395.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,070.8	254.0	303.4	395.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,170.8	254.0	303.4	395.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,270.8	254.0	303.4	395.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,370.8	254.0	303.4	395.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,470.8	254.0	303.4	395.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,570.8	254.0	303.4	395.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,670.8	254.0	303.4	395.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,770.8	254.0	303.4	395.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,870.8	254.0	303.4	395.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,970.8	254.0	303.4	395.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,070.8	254.0	303.4	395.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,170.8	254.0	303.4	395.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,270.8	254.0	303.4	395.7	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
CWU 1516-24D - plan hits target cent - Circle (radius 50.0)		0.00	6,971.0	254.0	303.4	-108,001.42	2,591,354.27	40° 1' 1.870 N	109° 23' 20.260 W

Checked By:	Approved By:	Date	
-------------	--------------	------	--



# Chapita Wells Unit 1515-24D, 1516-24D, 1517-24D, 1518-24D, 1519-24D, 1520-24D SESW, Section 24, T9S, R22E Uintah County, Utah

#### SURFACE USE PLAN

The well pad is approximately 360 feet long with a 245-foot width, containing 2.02 acres more or less. The well access road is approximately 528 feet long with a 30-foot right-of-way, disturbing approximately .36 acre. New surface disturbance associated with access road and the well pad is estimated to be approximately 2.38 acres. The proposed pipeline is approximately 2568 feet long with a 40-foot temporary and 8-foot permanent right-of-way disturbing approximately 2.36 acres.

#### 1. EXISTING ROADS:

- A. See attached Plats showing directional reference stakes on location, and attached TOPO Map "B" showing access to location from existing roads.
- B. The proposed well site is located approximately 50.2 miles south of Vernal, Utah See attached TOPO Map "A".
- C. Refer to attached Topographic Map "A" showing labeled access route to location.
- D. Existing roads will be maintained and repaired as necessary.

#### 2. PLANNED ACCESS ROAD:

- A. The access road will be approximately 528' in length, with culverts installed on an asneeded basis. See attached Topo B.
- B. The access road has a 30-foot ROW w/18 foot running surface.
- C. Maximum grade of the new access road will be 8 percent.
- D. No turnouts will be required.
- E. Road drainage crossings shall be of the typical dry creek drainage crossing type.
- F. No bridges, or major cuts and fills will be required.
- G. The access road will be dirt surface.
- H. No gates, cattleguards, or fences will be required or encountered.

- I. A 30-foot permanent right-of-way is requested. No surfacing material will used.
- J. No additional storage areas will be needed for storing equipment, stockpiling, or vehicle parking.

All travel will be confined to existing access road rights-of-way.

New or reconstructed roads will be centerlined – flagged at time of location staking. Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

The road shall be constructed/upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Construction/upgrading shall include ditching, draining, graveling, crowning, and capping the roadbed as necessary to provide a well-constructed, safe road. Prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30-foot right-of-way will not be allowed. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the roadbed block the drainages. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around then avoided.

As operator, EOG Resources, Inc. shall be responsible for all maintenance on cattleguards, or gates associated with this oil and/or gas operation.

Traveling off the 30-foot right-of-way will not be allowed. The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition, and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction. During the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and drainage ditches and culverts will be kept clear and free flowing.

#### 3. LOCATION OF EXISTING WELLS WITHIN A ONE-MILE RADIUS:

See attached TOPO map "C" for the location of wells within a one-mile radius.

#### 4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:

#### A. On Well Pad

1. Production facilities will be set on location if the well is successfully completed for production. Facilities will consist of wellhead valves, combo separator-dehy unit with meter, six (6) to ten (10) 400-bbl vertical tanks and attaching piping.

2. Gas gathering lines – A 4" gathering line will be buried from dehy to the edge of the location.

#### B. Off Well Pad

- 1. Proposed pipeline will transport natural gas.
- 2. The pipeline will be a permanent feeder line.
- 3. The length of the proposed pipeline is 2568' x 40'. The proposed pipeline leaves the eastern edge of the well pad (Lease UTU-0282) proceeding in a northwesterly, then southwesterly direction for an approximate distance of 2568' tieing into an existing pipeline in the SWSW of Section 24, T9S, R22E (Lease UTU-0282). Pipe will be 4" NOM, 0.156 wall, Grade X42, Zap-Lock, electric weld with a 35 mil X-Tru coating.
- 4. Proposed pipeline will be a 4" OD steel, zap-lok line laid on the surface
- 5. Proposed pipeline will be laid on surface.
- 6. Pipeline will be coupled using the Zap lock method. No additional off-pad facilities will be required.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within 6 months of installation. **All facilities will be painted with Carlsbad Canyon.** Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

#### 5. LOCATION AND TYPE OF WATER SUPPLY:

- A. Water supply will be from Ouray Municipal Water Plant at Ouray, Utah, and/or Bonanza Power Plant water source in Sec 26, T8S, R23E, Uintah County, UT (State Water Right # 49-225(A31368)). Water will be hauled by a licensed trucking company.
- B. Water will be hauled by a licensed trucking company.
- C. No water well will be drilled on lease.

#### 6. Source of Construction Materials:

- A. All construction material for this pipeline will be of native borrow and soil accumulated during the construction of the location.
- B. No mineral materials will be required.

#### 7. METHODS OF HANDLING WASTE DISPOSAL:

#### A. METHODS AND LOCATION

- 1. Cuttings will be confined and dried in a cuttings pit. Dried cuttings shall be spread on the access road.
- 2. A portable toilet will be provided for human waste during the drilling and completion of the well. Disposal will be at the Vernal sewage disposal plant.
- 3. Burning will not be allowed. Trash and other waste material will be contained in a wire mesh cage and disposed of at the Uintah County Landfill.
- 4. Produced wastewater will be confined to a storage tank for a period not to exceed 90 days after initial production. After the 90 day period, the produced water will be contained in a tank on location and then disposed of at one of the following locations: Natural Buttes Unit 21-20B SWD, Ace Disposal, CWU 550-30N SWD CWU 2-29 SWD, Red Wash Evaporation Ponds 1, 2, 3, 4, 5, 6, or 7, or Coyote Evaporation Ponds 1, 2, 3, or 4, or White River Evaporation Ponds 1, or 2, or Hoss SWD Facility: right-of-way UTU 86010, and UTU 897093, or EOG Resources, Inc. drilling operations (Chapita Wells Unit, Natural Buttes Unit & Stagecoach Unit).
- 5. All chemicals will be disposed of at an authorized disposal site. Drip pans and absorbent pads will be used on the drilling rig to avoid leakage of oil to the pit.
- B. Water from drilling fluids and recovered during testing operations will be disposed of by either natural or artificial evaporation methods, or removed and disposed of at an authorized disposal site. Introduction of well bore hydrocarbons to the closed loop system will be avoided by flaring them off in the flare pit at the time of recovery.

The referenced well will be drilled utilizing a closed loop system. The closed loop system will be installed in a manner that prevents leaks, breaks, or discharge. Drill cutting will be contained in an area approximately 50' x 100'. The surface drill cuttings pile will be bermed and lined with bentonite. Drill cuttings will be dried and spread on the location and access road. More stringent protective requirements may be deemed necessary by the A.O.

EOG Resources, Inc. maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be found at the site may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous and EHS and

commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completion of the well. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.

#### 8. Ancillary Facilities:

None anticipated.

#### 9. WELL SITE LAYOUT:

- A. Refer to attached well site plat for related topography cuts and fills and cross sections.
- B. Refer to attached well site plat for rig layout and soil material stockpile location as approved on On-site.
- C. Refer to attached well site plat for rig orientation, parking areas, and access road.

The proposed location will be drilled utilizing a closed loop system.

The stockpiled location topsoil will be stored in a location providing easy access for interim reclamation and protection of the topsoil. Upon completion of construction, the stockpiled topsoil from the location will be seeded with the approved seed mixture from this.

Access to the well pad will be from the west.

The corners of the well pad will be rounded off as needed to minimize excavation.

#### 10. PLANS FOR RECLAMATION OF THE SURFACE:

#### A. Interim Reclamation (Producing Location)

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.

Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with CFR 3162.7-1.

If a plastic nylon reinforced liner is used, it shall be torn and perforated before backfilling of the reserve pit.

The portion of the location not needed for production facilities/operations will be reclaimed – See attached Figure #3. The reserve pit will be reclaimed within 90 days from the date of the well completion, or as soon as environmental conditions allow. Before any dirt takes place, the reserve pit must be completely dry and free of all foreign obstacles.

The stockpiled topsoil will then be spread over the pit area (See Figure #4) and broadcast seeded with the prescribed seed mixture for this location as authorized within EOG's reclamation plan filed September 29, 2009.

### B. Dry Hole/Abandoned Location

At such time as the well is plugged and abandoned, the operator will submit a subsequent report of abandonment and the BLM will attach the appropriate surface rehabilitation conditions of approval.

#### 11. SURFACE OWNERSHIP:

Surface ownership of the proposed well site, access road, and pipeline route is as follows:

**Bureau of Land Management** 

#### 12. OTHER INFORMATION:

- A. EOG Resources, Inc. will inform all persons in the area who are associated with this project that they are subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the Authorized Officer. Within five working days the Authorized Officer will inform the operator as to:
  - Whether the materials appear eligible for the National Register of Historic Places;
  - The mitigation measures the operator will likely have to undertake before the site can be used.
  - A time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.

If the operator wished, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials that may be required. Otherwise, the operator will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer

that required mitigation has been completed, the operator will then be allowed to resume construction.

- B. As operator, EOG Resources, Inc. will control noxious weeds along Right-of-Ways for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds will be obtained from the BLM administered land, a Pesticide Use proposal shall be submitted, and given approval, prior to the application or herbicides or other pesticides or possible hazardous chemicals.
- C. Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on BLM lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities. (The BLM does not seek to compete with private industry. There are commercial facilities available for stacking and storing drilling rigs.)
- D. The drilling rig and ancillary equipment will be removed from the location prior to commencement of completion operations. Completion operations will be conducted utilizing a completion/workover rig.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice of Lessees. The operator is fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Construction activity will not be conducted using frozen or saturated soils material or during periods when watershed damage is likely to occur.

If the existing access road, proposed access road, and proposed pad are dry during construction, drilling, and completion activities, water will be applied, as needed, to help facilitate compaction during construction and to minimize soil loss as a result of wind erosion.

A block cultural resources survey was conducted and submitted by Montgomery Archaeological Consultants, MOAC Report # 06-614, on March 26, 2007. A paleontological survey was conducted and will be submitted by Intermountain Paleo.

#### **Additional Surface Stipulations:**

None

Page 8

#### LESSEE OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:

#### **PERMITTING AGENT**

Mary A. Maestas EOG Resources, Inc. 1060 East Highway 40 Vernal, UT 84078 (435) 781-9111

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.

The operator or his/her contractor shall contact the BLM office at (435) 781-4400 forty-eight (48) hours prior to construction activities.

# Chapita Wells Unit 1515-24D, 1516-24D, 1517-24D, 1518-24D, 1519-24D, 1520-24D Surface Use Plan

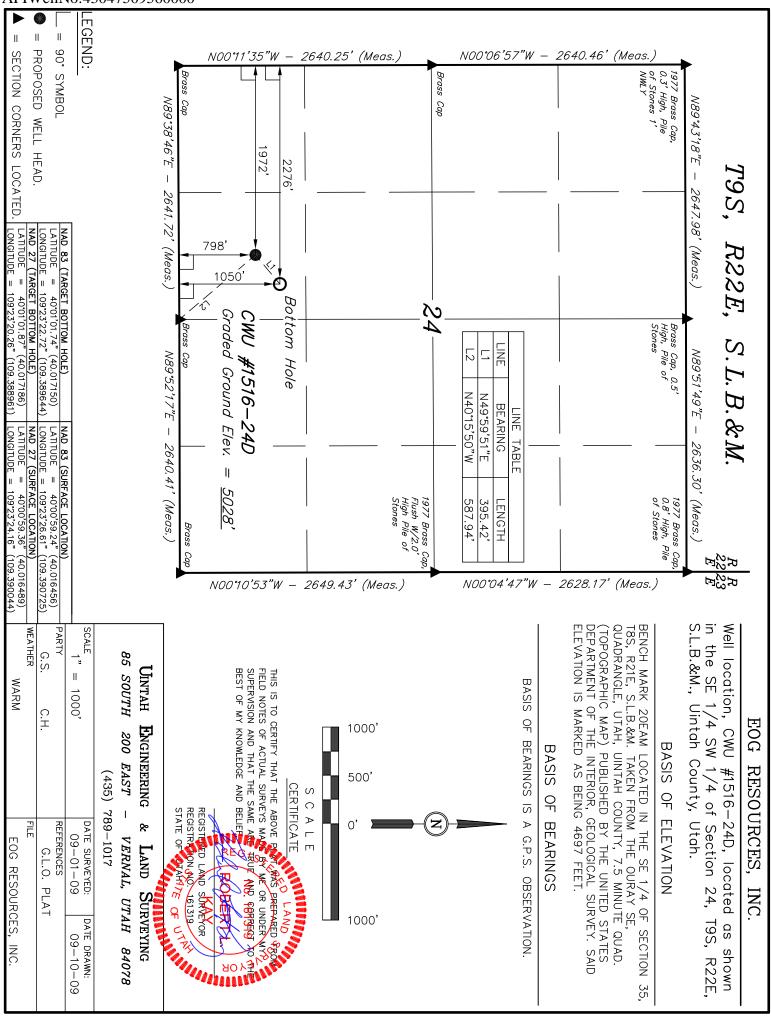
Page 9

#### **CERTIFICATION:**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EOG Resources, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Please be advised that EOG Resources, Inc. is considered to be the operator of the Chapita Wells Unit 1515-24D, 1516-24D, 1517-24D, 1518-24D, 1519-24D, 1520-24D Wells, located in the SESW, of Section 24, T9S, R22E, Uintah County, Utah; Federal land and minerals; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond Coverage is under Bond # NM 2308.

February 11, 2010	
Date	Mary A. Maestas, Regulatory Assistant



**EOG RESOURCES, INC.** CWU #1515-24D, #1516-24D, #1517-24D,

#1518-24D, #1519-24D & #1520-24D LOCATED IN UINTAH COUNTY, UTAH SECTION 24, T9S, R22E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: NORTHEASTERLY

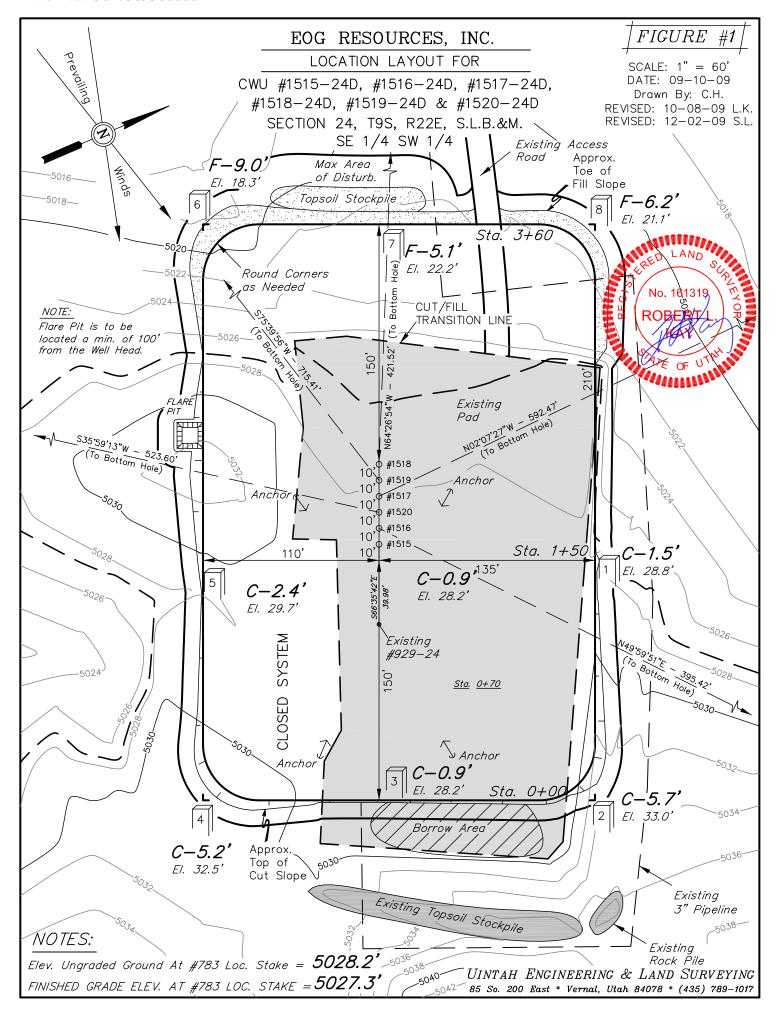


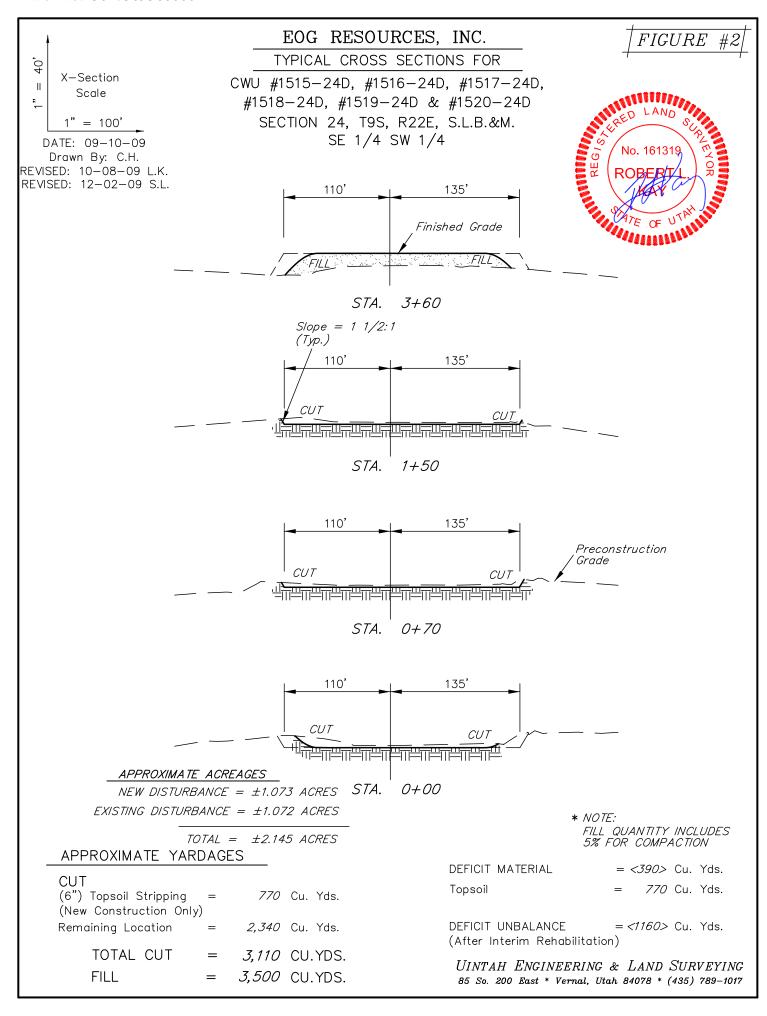
PHOTO: VIEW OF EXISTING ACCESS

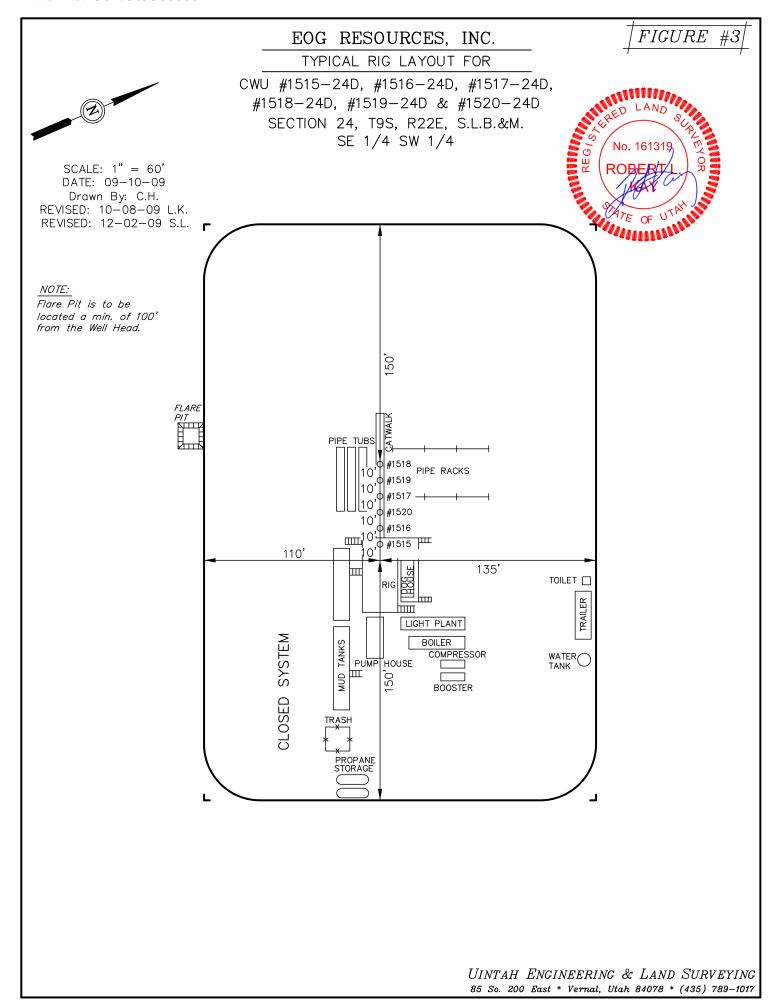
CAMERA ANGLE: SOUTHEASTERLY

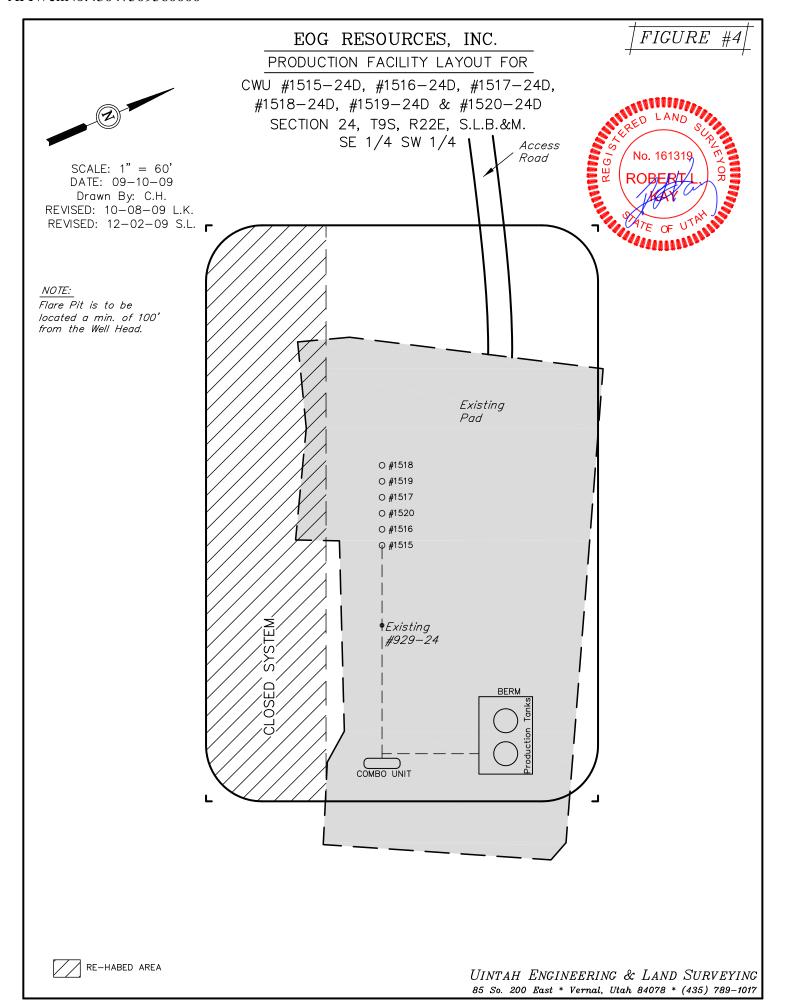


LOCATION	09 MONTH	11 DAY	09 YEAR	РНОТО
TAKEN BY: G.S.	DRAWN BY: L.K	. REV	/: 12-02-	





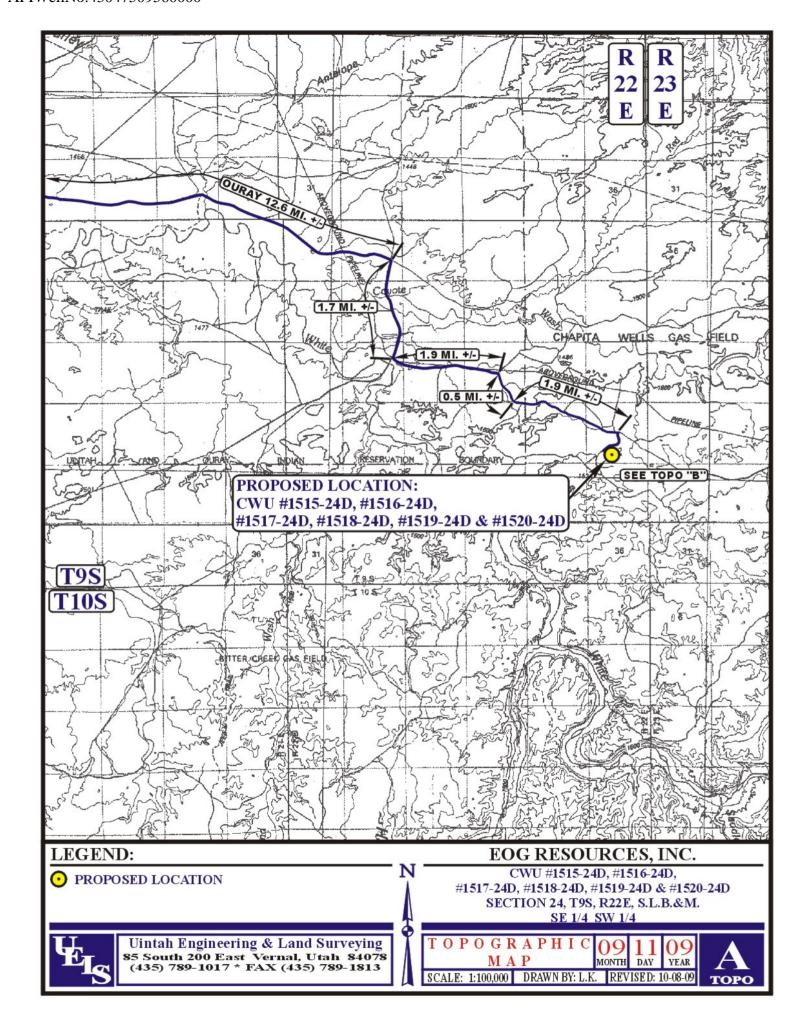


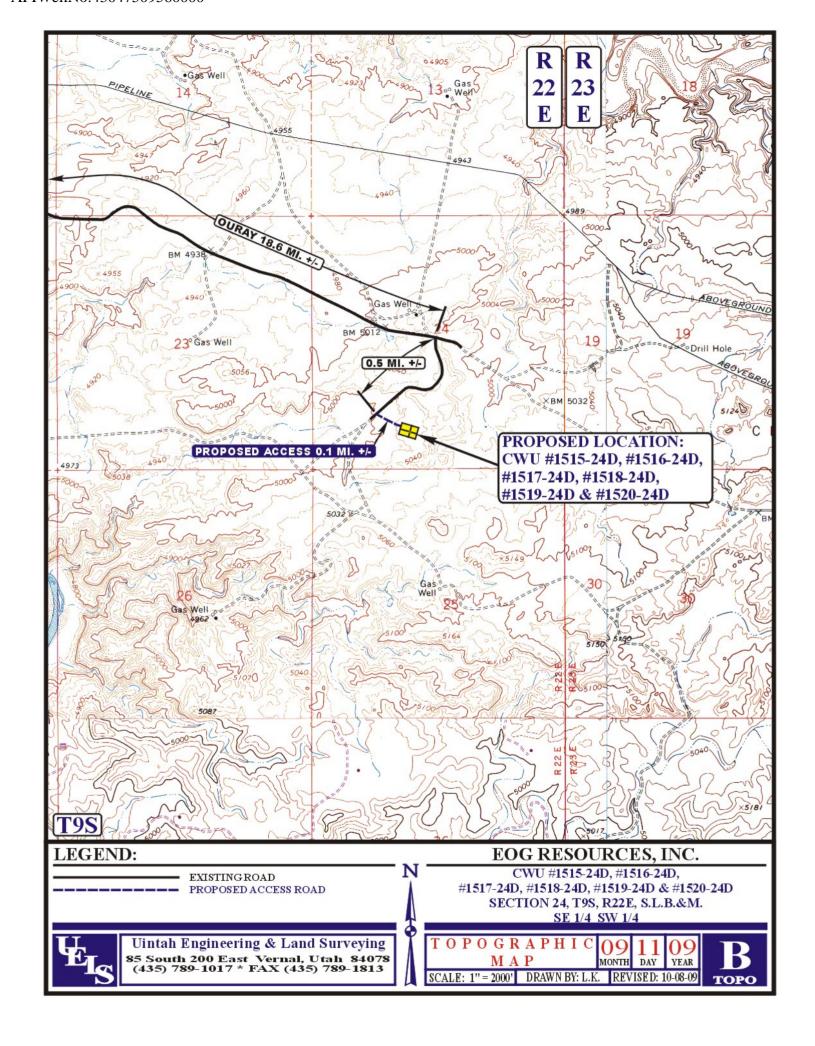


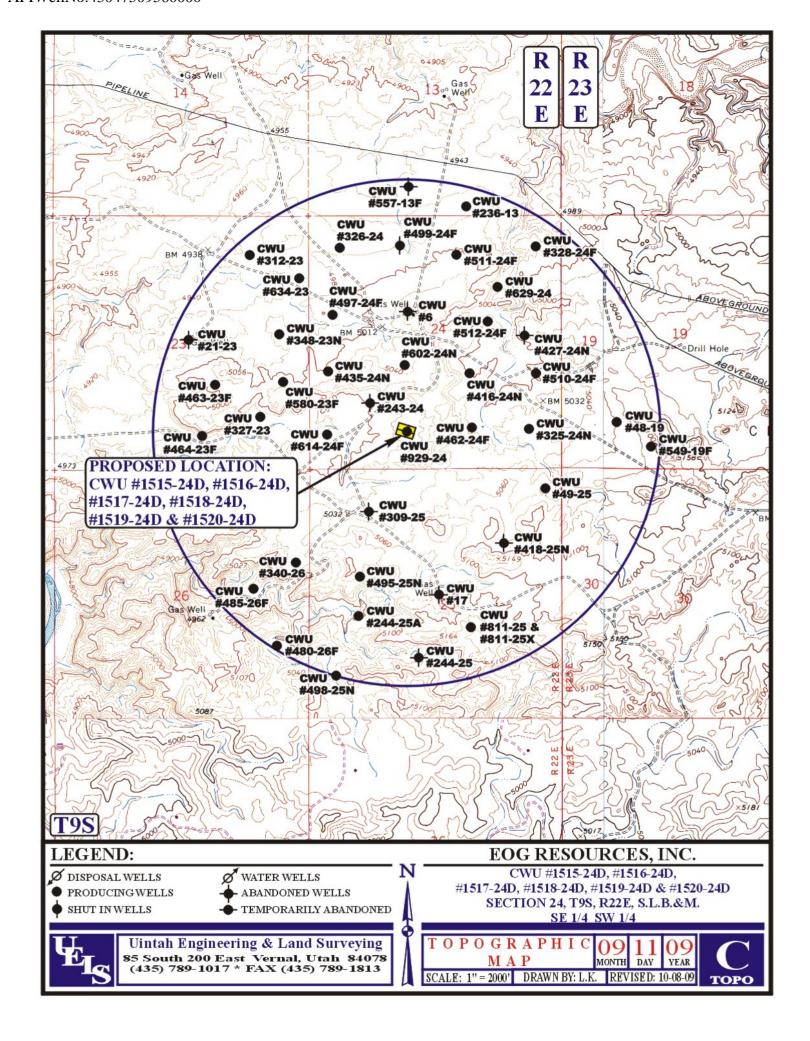
# EOG RESOURCES, INC. CWU #1515-24D, #1516-24D, #1517-24D, #1518-24D, #1519-24D & #1520-24D SECTION 24, T9S, R22E, S.L.B.&M.

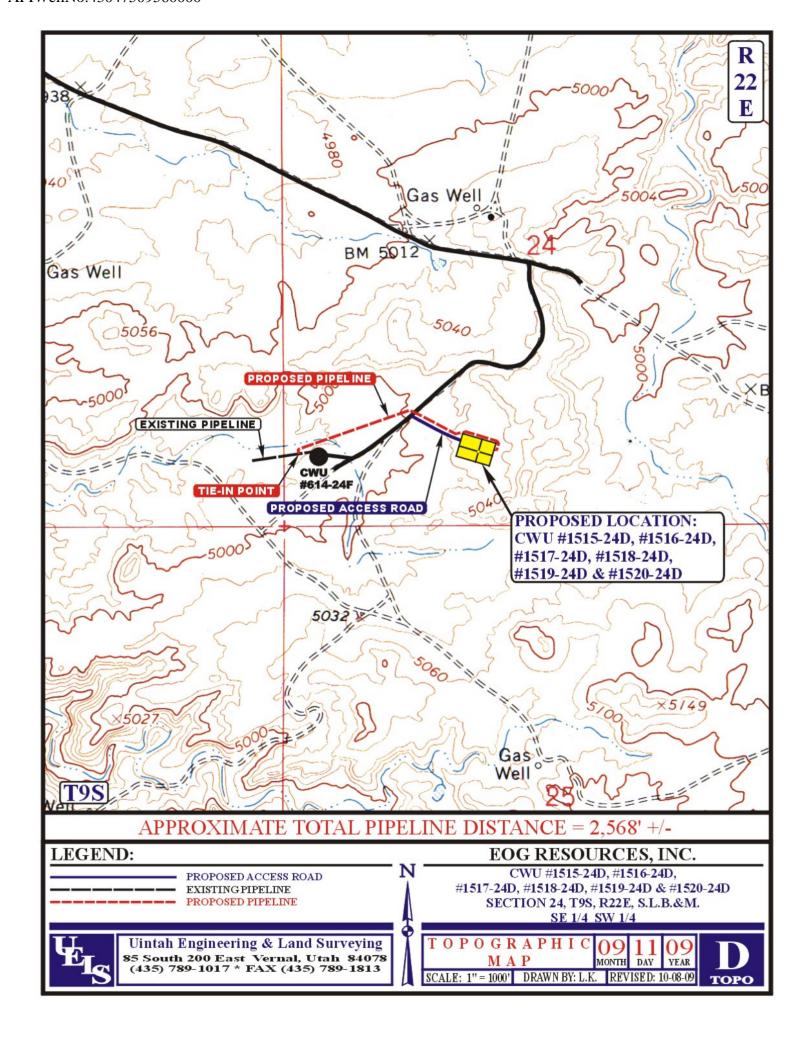
PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST: TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST: TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH: TURN RIGHT AND PROCEED IN A SOUTHERLY. THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE PROPOSED LOCATION.

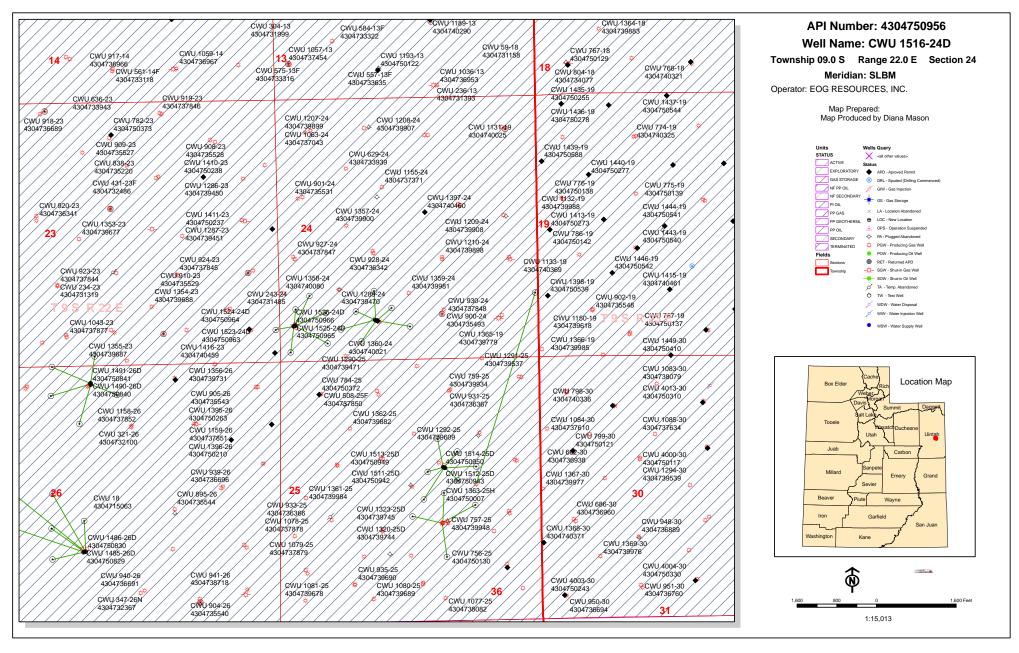
TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 50.2 MILES.











# **United States Department of the Interior**

#### BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

March 8, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Chapita Wells Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Chapita Wells Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ MESA VERDE)

43-047-50963 CWU 1523-24D Sec 24 T09S R22E 0732 FSL 0325 FWL BHL Sec 24 T09S R22E 1325 FSL 0629 FWL 43-047-50962 CWU 1522-24D Sec 24 T09S R22E 0724 FSL 0307 FWL BHL Sec 24 T09S R22E 1059 FSL 0345 FWL Sec 24 T09S R22E 1059 FSL 0345 FWL BHL Sec 24 T09S R22E 1050 FSL 2276 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Chapita Wells Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:3-8-10



EOG Resources, Inc. 1060 E Hwy 40 Vernal, Utah 84078

May 18, 2010

Diana Whitney Utah Division of Oil, Gas, & Mining P.O. Box 145801 Salt Lake City, Utah 54114-5801

**RE:** Directional Application

Lease UTU-0282 Chapita Wells Unit 1516-24D Section 24, T9S, R22E Uintah County, Utah

Ms. Whitney,

Pursuant to the filing of Chapita Wells Unit 1516-24D Application for Permit to Drill regarding the above referenced well on February 24, 2010, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- EOG Resources, Inc. is the only lease operator/working interest owner within a 460 foot radius of the Chapita Wells Unit 1516-24D well bore, located within Section 24, T9S, R22E, Uintah County, Utah.
- EOG Resources, Inc. is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, EOG will be able to utilize the existing road infrastructure.
- Furthermore, EOG hereby certifies that EOG is the sole working interest owner within 460 feet of the entire directional well bore.

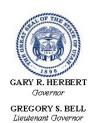
Based on the above stated information, EOG Resources, Inc. requests the permit be granted pursuant to R649-3-11.

Sincerely,

Mary A. Maestas Regulatory Assistant

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:		API NO. ASSIGNED:	43047509560000
	CWU 1516-24D		
	EOG Resources, Inc. (N95)	50) <b>PHONE NUMBER:</b>	303 824-5526
CONTACT:	Mary Maestas		
PROPOSED LOCATION:	SESW 24 090S 220E	Permit Tech Review:	
SURFACE:	0798 FSL 1972 FWL	Engineering Review:	
воттом:	1050 FSL 2276 FWL	Geology Review:	
COUNTY:	UINTAH		
LATITUDE:	40.01651	LONGITUDE:	-109.38998
UTM SURF EASTINGS:	637405.00	NORTHINGS:	4430621.00
FIELD NAME:	NATURAL BUTTES		
LEASE TYPE:	1 - Federal		
LEASE NUMBER:	UTU0282 PROPO	SED PRODUCING FORMATION(S): MESA V	'ERDE
SURFACE OWNER:	1 - Federal	COALBED METHANE:	NO
RECEIVED AND/OR REVIEWE	D:	LOCATION AND SITING:	
<b></b> ✓ PLAT		R649-2-3.	
<b>■ Bond:</b> FEDERAL - NM2308		Unit: CHAPITA WELLS	
Potash		R649-3-2. General	
☑️ Oil Shale 190-5			
Oil Shale 190-3		R649-3-3. Exception	
Oil Shale 190-13		✓ Drilling Unit	
Water Permit: 49-225		<b>Board Cause No:</b> Cause 179-8	
RDCC Review:		Effective Date: 8/10/1999	
Fee Surface Agreement		Siting: Suspends General Siting	
Intent to Commingle		<b>№</b> R649-3-11. Directional Drill	
Commingling Approved			
Comments: Presite Compl	leted		
15 - Direction	Approval - dmason nal - dmason e 190-5(b) - dmason		



### State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

#### **Permit To Drill**

\*\*\*\*\*\*

**Well Name:** CWU 1516-24D **API Well Number:** 43047509560000

**Lease Number:** UTU0282 **Surface Owner:** FEDERAL **Approval Date:** 6/1/2010

#### **Issued to:**

EOG Resources, Inc., 1060 East Highway 40, Vernal, UT 84078

#### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-8. The expected producing formation or pool is the MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

#### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

API Well No: 43047509560000

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

#### **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:** 

Acting Associate Director, Oil & Gas

	STATE OF UTAH				FORM 9
	DIVISION OF OIL, GAS, AND MI		3	5.LEAS UTU0	GE DESIGNATION AND SERIAL NUMBER: 282
SUNDF	RY NOTICES AND REPORTS	ON	I WELLS	6. IF I	NDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deeper igged wells, or to drill horizontal laterals.				F OF CA AGREEMENT NAME: ITA WELLS
1. TYPE OF WELL Gas Well					L NAME and NUMBER: 1516-24D
2. NAME OF OPERATOR: EOG Resources, Inc.					NUMBER: 7509560000
3. ADDRESS OF OPERATOR: 1060 East Highway 40 , Verna			UMBER: ext		LD and POOL or WILDCAT: RAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0798 FSL 1972 FWL				COUNT	
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SESW Section: 24	P, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian:	S		STATE	
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPORT	Γ, OR OT	HER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	☐ ACIDIZE		ALTER CASING		CASING REPAIR
Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
5/27/2011	☐ CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	; [	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN		FRACTURE TREAT		NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE		PLUG AND ABANDON		PLUG BACK
_	☐ PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	□ <b>:</b>	SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON
	☐ TUBING REPAIR		VENT OR FLARE		WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	□ :	SI TA STATUS EXTENSION	-	APD EXTENSION
Report Date:	□ WILDCAT WELL DETERMINATION		OTHER	ОТІ	HER:
	respectfully requests the API extended for one year	O for	r the referenced well b	oe ,	Approved by the Utah Division of II, Gas and Mining 05/31/2011
NAME (PLEASE PRINT) Mickenzie Gates	<b>PHONE NUMBER</b> 435 781-9145		TITLE Operations Clerk		
SIGNATURE N/A			<b>DATE</b> 5/27/2011		



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047509560000

**API:** 43047509560000 **Well Name:** CWU 1516-24D

Location: 0798 FSL 1972 FWL QTR SESW SEC 24 TWNP 090S RNG 220E MER S

**Company Permit Issued to:** EOG RESOURCES, INC.

**Date Original Permit Issued:** 6/1/2010

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes</li> <li>No</li> </ul>
• Has the approved source of water for drilling changed? 🔵 Yes 🌘 No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No

**Signature:** Mickenzie Gates **Date:** 5/27/2011

**Title:** Operations Clerk **Representing:** EOG RESOURCES, INC.

Form 3160-3 (August 2007)

# RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR FEB 1 9 2010
BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

Lease Serial No. UTU0282

APPLICATION FOR PERI	IIIT TO DRILL OR REENTER	6. If Indian, Allottee or Tribe Name
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No. UTU63013BF
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐	Other Single Zone Multiple Zone	8. Lease Name and Well No. CWU 1516-24D
2. Name of Operator Cor	ntact: MARY A. MAESTAS	9. API Well No.
	ary_maestas@eogresources.com	43.047-50956
3a. Address 1060 EAST HIGHWAY 40 VERNAL, UT 84078	3b. Phone No. (include area code) Ph: 303-824-5526	10. Field and Pool, or Exploratory NATURAL BUTTES
4. Location of Well (Report location clearly and in ac	cordance with any State requirements.*)	11. Sec., T., R., M., or Blk. and Survey or Area
	WL 40.01646 N Lat, 109.39073 W Lon	Sec 24 T9S R22E Mer SLB SME: BLM
At proposed prod. zone SESW 1050FSL 2276		
14. Distance in miles and direction from nearest town or 50.2 MILES SOUTH OF VERNAL, UT		12. County or Parish 13. State UINTAH UT
<ol> <li>Distance from proposed location to nearest property lease line, ft. (Also to nearest drig. unit line, if any)</li> </ol>	or 16. No. of Acres in Lease	17. Spacing Unit dedicated to this well
270' LEASE LINE	2440.00	
18. Distance from proposed location to nearest well, dril	ling, 19. Proposed Depth	20. BLM/BIA Bond No. on file
completed, applied for, on this lease, ft. 370'	9374 MD 9345 TVD	NM2308
21. Elevations (Show whether DF, KB, RT, GL, etc. 5028 GL	22. Approximate date work will start	23. Estimated duration 45 DAYS
	24. Attachments	
The following, completed in accordance with the requirem	ents of Onshore Oil and Gas Order No. 1, shall be attached	to this form:
Well plat certified by a registered surveyor.     A Drilling Plan.     A Surface Use Plan (if the location is on National Fores SUPO shall be filed with the appropriate Forest Servi	4. Bond to cover the opera Item 20 above).  t System Lands, the 5. Operator certification	tions unless covered by an existing bond on file (see information and/or plans as may be required by the
25. Signature (Electronic Submission)	Name (Printed/Typed) MARY A. MAESTAS Ph. 303-824-552	Date 02/19/2010
Title REGULATORY ASSISTANT		
Approved by (Signature)	Name (Printed/Typed)	9UL 2 6 201
Son Revel	Jerry Kenczka	305 201
Assistant Field Manager Lands & Mineral Resources	VERNAL FIELD OFFICE	E
Application approval does not warrant or certify the applic operations thereon. Conditions of approval, if any, are attached.	ant holds legal or equitable title to those rights in the subje	ct lease which would entitle the applicant to conduct
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1 States any false, fictitious or fraudulent statements or repre	212, make it a crime for any person knowingly and willful sentations as to any matter within its jurisdiction.	y to make to any department or agency of the United

Additional Operator Remarks (see next page)

RECEIVED

Electronic Submission #81688 verified by the BLM Well Information System AUG 0.2 2011
For EOG RESOURCES INC, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 02/19/2010 (10RRH0130AE)
DIV. OF OIL, GAS & MINING

### **NOTICE OF APPROVAL**

**CONDITIONS OF APPROVAL ATTACHED** 

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

10 RRH0024AE

NOS 10/20/09



# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL FIELD OFFICE
VERNAL, UT 84078

(435) 781-440



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

**EOG Resources Inc.** 

170 South 500 East

CWU 1516-24D

43-047-50956

Location:

Agreement:

SESW, Sec.24, T9S R22E

Lease No: UTU 0282

Chapita Wells Unit

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER: (435) 781-3420** 

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit was processed using a 390 CX tied to NEPA approved 03/31/2008. Therefore, this permit is approved for a two (2) year period OR until lease expiration OR the well must be spud by 05/23/2013 (5 years from the NEPA approval date), whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	_	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	_	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: CWU 1516-24D

7/25/2011

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.

#### SITE SPECIFIC CONDITIONS OF APPROVAL

#### Wildlife and T&E Species:

• Install a hospital muffler to help reduce noise and minimize disturbance within the habitat for various wildlife species.

#### Paleontology:

 A permitted paleontologist will monitor the beginning of the construction process for the well pad covered in this report, and there after conduct a spot monitor as paleontological conditions merit.

#### Paint:

• All facilities will be painted Covert Green within six months of installation, except those facilities which are required to comply with the Occupational Safety and Health Act (OSHA).

#### Note:

Expiration Date for the "Chapita Wells Stagecoach Area Natural Gas Development Environmental Impact Statement," (EIS # UT-080-2005-0010) is March 31, 2013. Approval and drilling of this gas well is contingent on the validity of the above EA (sec. 390, b:3, Energy Policy Act of 2005). Consequently, the well must be spudded by March 31, 2013; otherwise, the APD will default to 'expired status' and the operator will cease all drilling related activities at the site.

Page 3 of 7 Well: CWU 1516-24D 7/25/2011

#### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Surface casing cement shall be brought up and into the surface. Top of Cement is to reach surf.
  For surface casing cement program, to reach surface with Top of Cement, operator will pump
  additional cement in Top Out stage. Surface casing interval is drilled thru a lost circulation
  formation, Birdsnest at 1750 ft. Program cement for surface casing does 'not' include excess
  overage for cement pumped. Operator program cement for surface casing displacement volume of
  cement relative to the estimated annular volume does 'not include excess overage design factor.
- Production casing cement shall be brought up and into the surface casing. The minimum cement top is 400 ft above the surface casing shoe. COA specification is a change to operators performance standard stated in APD. Well is drilled on a multi-well well pad location.
- A Gamma Ray well Log shall be run from the well Total Depth to the surface. A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.
- A copy of the as drilled directional survey shall be submitted to the BLM Vernal Field Office. Submit the MWD-GR survey from the directional/horizontal drilling operations, hard copy or electronically.
- Well location TD bottom footage hole location information on the completion form 3160-4 Well
  Completion or Recompletion Report and Log should match and be in agreement with the from the
  actual drilling directional survey well departure values for the TD bottom hole location. A copy of the
  Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- <u>Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.</u>
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily
  drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order
  No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a
  test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's
  log.

Page 4 of 7 Well: CWU 1516-24D

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- · Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
  encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
  Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 5 of 7 Well: CWU 1516-24D 7/25/2011

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - o Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of

Page 6 of 7 Well: CWU 1516-24D 7/25/2011

the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
  the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
  All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
  product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
  accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office
  Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in
  order that a representative may witness plugging operations. If a well is suspended or abandoned,
  all pits must be fenced immediately until they are backfilled. The "Subsequent Report of
  Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of

Page 7 of 7 Well: CWU 1516-24D 7/25/2011

the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 21118 Approval of This: 43047509560000

Action is Necessary

			EODM O
	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU0282
SUNDI	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen e ugged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: CHAPITA WELLS
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: CWU 1516-24D
2. NAME OF OPERATOR: EOG Resources, Inc.			9. API NUMBER: 43047509560000
3. ADDRESS OF OPERATOR: 1060 East Highway 40 , Verna		E NUMBER: 1 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0798 FSL 1972 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH: Qtr/Qtr: SESW Section: 24	IP, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
12/9/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN [	FRACTURE TREAT	□ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	□ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
Drilling Report	□ WATER SHUTOFF	SI TA STATUS EXTENSION	☐ APD EXTENSION
Report Date:	□ WILDCAT WELL DETERMINATION	OTHER	OTHER:
I .	OMPLETED OPERATIONS. Clearly show all perti		
	respectfully requests authoriza nal Survey for the referenced w		g
Tidii dila bireccioi	ial Salvey for the referenced w	ren as per the attached.	Accepted by the
			Utah Division of
			Oil, Gas and Mining
		D	late: 12/19/2011
		_	Oli In a mark
		В	y: Daly July
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Mickenzie Gates	435 781-9145	Operations Clerk	
SIGNATURE N/A		<b>DATE</b> 12/9/2011	

#### **DRILLING PLAN**

#### MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

#### 1. & 2. ESTIMATED TOPS & ANTICIPATED OIL, GAS, & WATER ZONES:

\*\*REVISION: all revisions have been high-lighted in yellow.

	CWU 1	515-24D	CWU 1	516-24D	CWU 1	517-24D	CWU 1	518-24D
FORMATION	TVD	MD	TVD	MD	TVD	MD	TVD	MD
Green River	1431	1447	1416	1423	1423	1435	1420	1429
Birdsnest	1740	1767	1732	1743	1735	1756	1733	1747
Mahogany Oil Shale Bed	2320	2368	2328	2347	2340	2379	2331	2354
Wasatch	4663	<mark>4730</mark>	4678	4707	4699	4758	4691	4723
Chapita Wells	<del>5254</del>	5321	5257	5286	5278	5337	5269	5302
Buck Canyon	<del>5944</del>	<b>6011</b>	5949	5978	5974	6034	5962	5995
North Horn	6605	6672	6616	6645	6634	6694	6627	6660
KMV Price River	6959	7026	6971	7000	7002	7062	6998	7031
KMV Price River Middle	<b>7830</b>	<mark>7897</mark>	7842	7871	7870	7930	7865	7897
KMV Price River Lower	8624	8692	8630	8659	8654	8714	8650	8682
Sego	9145	9212	9147	9176	9163	9222	9149	9181
TD	9345	9412	9345	9374	9365	9424	9350	9382
ANTICIPATED BHP (PSI)	<mark>51</mark>	02	510	02	51 <sup>-</sup>	13	510	05

	CWU 1	519-24D	CWU 1	520-24D				
FORMATION	TVD	MD	TVD	MD	TVD	MD	TVD	MD
Green River	1416	1432	1411	1424				
Birdsnest	1730	1758	1725	1744				
Mahogany Oil Shale Bed	2322	2372	2308	2339				
Wasatch	4673	4755	4653	4699				
Chapita Wells	5252	5333	5232	5278				
Buck Canyon	5940	6021	5920	5966				
North Horn	6611	6692	6587	6633				
KMV Price River	6980	7061	6948	6995				
KMV Price River Middle	7847	7928	7817	7863				
KMV Price River Lower	8634	8716	8607	8653				
Sego	9153	9234	9134	9180				
TD	9355	9436	9335	9381				
ANTICIPATED BHP (PSI)	51	08	509	97				

- 1. Fresh Waters may exist in the upper, approximately 1,000 ft  $\pm$  of the Green River Formation, with top at about 2,000 ft  $\pm$ .
- 2. Cement isolation is installed to surface of the well isolating all zones by cement.

#### **DRILLING PLAN**

#### MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

3. PRESSURE CONTROL EQUIPMENT:

Production Hole – 5000 Psig BOP schematic diagrams attached.

#### 4. CASING PROGRAM:

Casing	Hole Size	Length	Size	Weight	Grade	Thread	Rating Collapse	Rating Burst	Tensile
Conductor	20"	0 – 60'	14"	32.5#	A252			1800 PSI	10,000#
Surface	12 1/4"	0 - 2,300'±	9 5%"	36.0#	J-55	STC	2020 PSI	3520 PSI	394,000#
Production	7 7/8"	Surface - TD	4 1/2"	11.6#	N-80	LTC	6350 PSI	7780 PSI	223,000#

Note: 12 1/4" surface hole will be drilled to a total depth of 200'± below the base of the Green River lost circulation zone and cased w/9-5/4" as shown to that depth. Drilled depth may be shallower or deeper than the 2300' shown above depending on the actual depth of the loss zone.

All casing will be new or inspected.

#### 5. Float Equipment:

#### Surface Hole Procedure (0'- 2300'±)

Guide Shoe

Insert Float Collar (PDC drillable)

Centralizers: 1 in middle of shoe joint, then top of every joint for next 7 joints, 2 at KOP. (10 total)

#### Production Hole Procedure (2300'± - TD):

Float shoe, 1 joint casing, float collar and balance of casing to surface. 4-½", 11.6#, N-80 or equivalent marker collars or short casing joints to be placed at top of Price River and 400' above top of Wasatch. Turbulizers to be placed 5' above shoe on joint #1, middle of joint #2 and #3. Centralizers starting on joint #4 and every 3rd joint to 400' above the top of primary objective. Thread lock float shoe, top and bottom of float collar, and top of 2<sup>nd</sup> joint.

#### 6. MUD PROGRAM

#### Surface Hole Procedure (Surface - 2300'±):

0' - 2300'± Air/Air mist/Aerated water\* (\*A standby water source will be available at all times to act as a kill medium when conducting air drilling operations)

or

A closed-loop system utilizing a gelled bentonite mud will be employed. LCM sweeps, additions, etc. will be used as necessary.

#### **DRILLING PLAN**

MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

#### <u>Production Hole Procedure (2300'± - TD):</u>

Anticipated mud weight 9.5-10.5 ppg depending on actual wellbore conditions encountered while drilling.

2300'± - TD

A closed mud system will be utilized. A bentonite gelled water mud system will be used to control viscosity w/PHPA polymer used for supplemental viscosity and clay encapsulation/inhibition. Water loss will be maintained at <15cc's using white starch or PAC. Bactericides will be used as needed. Anticipated pH will range from 9.0-10.0. Mud weight will be adjusted as necessary for well control. Deflocculants/thinners will be used as necessary to maintain mud quality. LCM sweeps will be utilized as necessary to control lost circulation and mud loss. CO2 contamination, if encountered, will be treated with lime and gypsum.

#### 7. VARIANCE REQUESTS:

Reference: Onshore Oil and Gas Order No. 1
Onshore Oil and Gas Order No. 2 – Section E: Special Drilling Operations

- EOG Resources, Inc. requests a variance to regulations requiring a straight run blooie line to be 100' in length. (Where possible, a straight run blooie line will be used).
- o EOG Resources, Inc. requests a variance to regulations requiring the blooie line to be 100' in length. To reduce location excavation, the blooie line will be approximately 75' in length.
- EOG Resources, Inc. requests a variance to regulations, during air drilling operations only, requiring dedusting equipment. Dust during air drilling operations is controlled by water mist.
- o EOG Resources, Inc. requests a variance to regulations, during air drilling operations only, requiring an automatic igniter or continuous pilot light on the blooie line. (Not required on aerated water system).
- EOG Resources, Inc. requests a variance that compressors are located in the opposite direction from the blooie line a minimum of 100 feet from the well bore. (Air Compressors are rig mounted).

#### 8. EVALUATION PROGRAM:

Open-hole Logs: None

Cased-hole Logs: Cased-hole logs will be run in lieu of open-hole logs consisting of the following:

**Cement Bond / Casing Collar Locator and Gamma Ray** 

#### **DRILLING PLAN**

### MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

#### 9. CEMENT PROGRAM:

#### Surface Casing (0'- ±2300' MD):

**Lead:** Lead volume to be calculated to bring cement from 500' above casing shoe to surface. Lead cement will be:

140 sx. HES VariCem (Type III) + 2% Cal-Seal (Thixotropic Additive) + 0.3% Versaset (Thixotropic Additive) + 2% Econolite (Light Weight Additive), mixed at 10.5 ppg, 4.10 cfps, 26.88 gps fresh water

**Tail:** Tail volume to be calculated to bring cement 500' above casing shoe. Tail cement will be:

135 sx. HES HalCem (Type V) + 2% CaCl<sub>2</sub> (Accelerator), mixed at 15.6 ppg, 1.18 cfps, 5.05 gps fresh water

Top Out: As necessary with:

HES HalCem (Type V) + 2% CaCl<sub>2</sub> (Accelerator), mixed at 15.6 ppg, 1.18 cfps, 5.05 gps fresh water

Note: The above number of sacks are calculated based on gauge hole. Final field cement volumes will be based on gauge hole plus 70% excess on the lead slurry and gauge hole plus 100% excess on the tail slurry.

#### **Production Casing (0'± - TD):**

**Lead:** Lead volume to be calculated to bring cement from 400' above top of Wasatch Formation to 200'± above 9 5/8" surface casing shoe @ ±2300' MD. For improved mud displacement, lead slurry weight will be a minimum of 0.5 ppg over mud weight utilized at well MTD and vary from 11.0 – 13.0 ppg.

If lead slurry weight required is 11.0 ppg - 12.5 ppg, cement will be:

HES Highbond 75 (75/25 Poz/G) + 6% Bentonite (Extender) + 0.3% Versaset (Thixotropic Additive) + 2% Microbond (Expansion Additive)

Calculated sacks with corresponding mixed slurry weights, yields and water requirements for above cement will be as follows:

- 205 sx. if 11.0 ppg, 2.52 cfps, 14.96 gps fresh water
- 245 sx. if 11.5 ppg, 2.12 cfps, 11.98 gps fresh water
- 285 sx. if 12.0 ppg, 1.83 cfps, 9.82 gps fresh water
- 320 sx. if 12.5 ppg, 1.61 cfps, 8.17 gps fresh water

If lead slurry weight required is 13.0 ppg, cement will be:

#### **DRILLING PLAN**

#### MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

320 sx. HES ExtendaCem (50/50 Poz/G) + 0.125 pps Pol-E-Flake (Lost Circulation Additive), mixed at 13.0 ppg, 1.63 cfps, 8.16 gps fresh water

**Tail:** Tail volume to be calculated to bring cement from MTD to 400' above top of Wasatch Formation. Tail cement will be:

790 sx. HES ExtendaCem (50/50 Poz/G) + 0.125 pps Pol-E-Flake (Lost Circulation Additive), mixed at 13.5 ppg, 1.47 cfps, 6.98 gps fresh water

Note: The above number of sacks in all cases are calculated based on gauge hole. Final field cement volumes will be based on gauge hole plus 50% excess on the lead slurry and gauge hole plus 70% excess on the tail slurry.

#### 10. ABNORMAL CONDITONS:

#### Surface Hole (Surface - 2300'±):

Lost circulation

#### Production Hole (2300'± - TD):

Sloughing shales, lost circulation and key seat development are possible in the Wasatch Formation.

#### 11. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Upper and Lower Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

#### 12. HAZARDOUS CHEMICALS:

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

#### 13. Air Drilling Operations:

- 1. Main Air Compressors are 1250 CFM 350 psi with 2000 psi Boosters and are rig mounted.
- 2. Secondary Air Compressors are 1170 CFM 350 psi with 2000 psi Boosters and are rig mounted.

#### **DRILLING PLAN**

#### MULTI-WELL PAD: CWU 1515-24D, CWU 1516-24D, CWU 1517-24D, CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

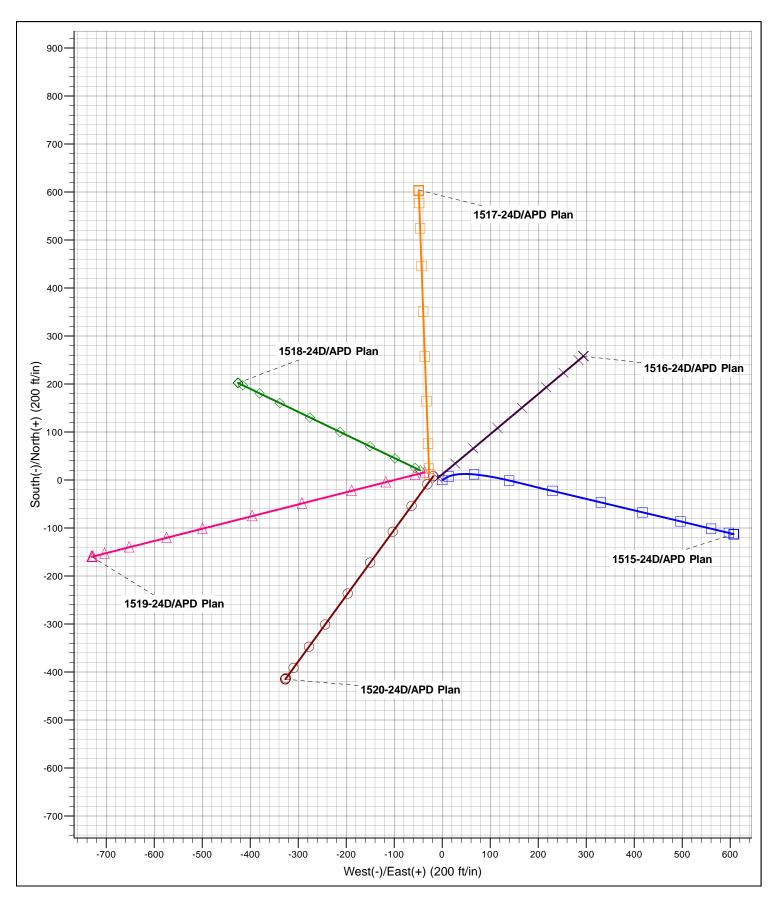
SE/SW, SEC. 24, T9S, R22E, S.L.B.&M.. UINTAH COUNTY, UTAH

- 3. Minimum setting depth of conductor casing will be 60' GL or 10'± into competent formation, whichever is deeper, as determined by the EOG person in charge. Exceptions must be approved by an EOG drilling superintendent or manager.
- 4. The diameter of the diverter flow line will be a minimum of 10" to help reduce back pressure on the well bore during uncontrolled flow.
- 5. Rat and Mouse hole drilling will occur only after surface casing has been set and cemented.
- 6. EOG Resources, Inc. will use a properly maintained and lubricated stripper head.

(Attachment: BOP Schematic Diagram)

### CWU 1515-24D, CWU 1516-24D, CWU 1517-24D CWU 1518-24D, CWU 1519-24D, CWU 1520-24D

SE/SW, SEC. 24 T9S, R22E, S.L.B. & M. UINTAH COUNTY, UTAH



Sundry Number: 21118 API Well Number: 43047509560000 -750 **0**eog resources CWU 1515-24D Start Build 2.00 Start DLS 1.50 TFO 59.89 Section 25 T9S R22E 750 **Uintah County, UT** Start 1103.68 hold at 1340.94 MD 1500 Surface Location NAD 1927 (NADCON CONUS) Utah North 4301 2250 Start Drop -1.00 Ground Elevation: 5028.00 RIG @ 5047.00ft (True 34) Northing Easting Latittude Longitude -108266.46 2591066.46 40° 0' 59.321 N 109° 23' 24.040 W 3000 True Vertical Depth (1500 ft/in) 3750 Start 3064.58 hold at 3944.62 MD South(-)/North(+) (200 ft/in) 4500 5250 6000 6750 Start 2403.00 hold at 7009.20 MD -200 7500 8250 600 0 200 400 9000 West(-)/East(+) (200 ft/in) TD at 9412.20 9750 Azimuths to True North Magnetic North: 11.28° Project: T9S-R22E Sec 24 Magnetic Field Śite: CWU 1515-1520 24D (Pad B4\_CWU 929-24\_Set 9) Strength: 52583.6snT -750 0 750 1500 Well: 1515-24D Dip Angle: 65.96° Date: 6/2/2009 Model: IGRF200510 Plan: APD Plan Vertical Section at 100.50deg (1500 ft/in) SECTION DETAILS +N/-S +E/-W TVD DLeg Sec MD **TFace** VSec Inc Azi Target 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 550.00 5.00 60.00 549.68 5.45 9.44 2.00 8.29 60.00 137.18 422.47 1340.94 15.00 103.41 1328.42 -1.07 139.32 59.89 CWU 1515-24D 2444.61 15.00 103.41 2394.49 -67.30 417.19 0.00 0.00 6 3944.62 0.00 0.00 3877.42 -112.56 607.10 607.10 1.00 180.00 617.45 617.45 CWU 1515-24D 7009.20 0.00 0.00 6942.00 -112.560.00 0.00 9345.00 8 9412.20 0.00 0.00 -112.56 607.10 0.00 0.00 617.45 TARGET DETAILS Name CWU 1515-24D Longitude 109° 23' 16.238 W TVD +F/-W +N/-S Northing Easting Latitude 40° 0' 58.208 N 6942.00 -112.56 607.10 2591676.11 Circle (Radius: 50.00) -108364.25

# **Denver Division - Utah**

T9S-R22E Sec 24 CWU 1515-1520 24D (Pad B4\_CWU 929-24\_Set 9) 1515-24D

Wellbore #1

Plan: APD Plan

# **Standard Planning Report**

21 November, 2011

#### **EOG Resources, Inc.**

Planning Report

Database:

edm

Company:

Denver Division - Utah

Project: Site:

T9S-R22E Sec 24

CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9)

1515-24D

Well: Wellbore: Design:

Site

Well

Wellbore #1 APD Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** 

Well 1515-24D

RIG @ 5046.99usft (True 34) RIG @ 5046.99usft (True 34)

True

Minimum Curvature

T9S-R22E Sec 24 Project

Map System:

Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

Utah North 4301 Map Zone:

System Datum:

Mean Sea Level

Site Position: From:

Lat/Long

CWU 1515-1520 24D (Pad B4\_CWU 929-24\_Set 9)

Northing: Easting:

-108,286.80 usft 2,591,113.75 usft

Latitude: Longitude:

40° 0' 59.108 N 109° 23' 23.438 W

1.39°

**Position Uncertainty:** 

0.00 usft Slot Radius: 13-3/16"

**Grid Convergence:** 

**Well Position** 

1515-24D +N/-S

+E/-W

21.48 usft -46.79 usft Northing: Easting:

-108,266.46 usft 2,591,066.46 usft Latitude: Longitude:

40° 0' 59.321 N 109° 23' 24.040 W

**Position Uncertainty** 

0.00 usft

Wellhead Elevation:

usft

**Ground Level:** 

5,027.99 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/2/2009	11.28	65.96	52,584

APD Plan Design **Audit Notes:** PROTOTYPE Version: Phase: Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 100.50 0.00 0.00 0.00

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
550.00	5.00	60.00	549.68	5.45	9.44	2.00	2.00	0.00	60.00	
1,340.93	15.00	103.41	1,328.42	-1.07	139.32	1.50	1.26	5.49	59.89	CWU 1515-24D
2,444.61	15.00	103.41	2,394.49	-67.30	417.19	0.00	0.00	0.00	0.00	
3,944.61	0.00	0.00	3,877.41	-112.56	607.10	1.00	-1.00	0.00	180.00	
7,009.18	0.00	0.00	6,941.99	-112.56	607.10	0.00	0.00	0.00	0.00	CWU 1515-24D
9,412.18	0.00	0.00	9,344.98	-112.56	607.10	0.00	0.00	0.00	0.00	

#### **EOG** Resources, Inc.

Planning Report

Database: edm

Company: Denver Division - Utah

Project: T9S-R22E Sec 24 Site:

CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9) 1515-24D

Well: Wellbore: Wellbore #1 Design: APD Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** 

Well 1515-24D

RIG @ 5046.99usft (True 34) RIG @ 5046.99usft (True 34)

True

Minimum Curvature

Measured Depth (usft)  0.00 100.00 200.00 300.00 400.00 550.00 600.00 700.00 800.00 1,000.00 1,200.00 1,200.00 1,340.93 1,400.00 1,500.00 1,500.00 1,600.00 1,700.00 1,800.00 1,800.00 1,900.00	nclination (°)  0.00 0.00 0.00 0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00 15.00	Azimuth (°)  0.00 0.00 0.00 0.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41 103.41	Vertical Depth (usft)  0.00 100.00 200.00 300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66 1,675.25	+N/-S (usft)  0.00 0.00 0.00 0.00 0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62 -22.62	+E/-W (usft)  0.00 0.00 0.00 0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	Vertical Section (usft)  0.00 0.00 0.00 0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30 204.15	Dogleg Rate (*/100usft)  0.00 0.00 0.00 2.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 0.00 0.0	Build Rate (°/100usft)  0.00 0.00 0.00 0.00 2.00 2.00 2.00 2.	Turn Rate (°/100usft)  0.00 0.00 0.00 0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
Depth (usft)  0.00  100.00  200.00  300.00  400.00  550.00  600.00  700.00  800.00  1,000.00  1,200.00  1,340.93  1,400.00  1,500.00  1,600.00  1,700.00  1,800.00  1,800.00	0.00 0.00 0.00 0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	0.00 0.00 0.00 0.00 60.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	Depth (usft)  0.00 100.00 200.00 300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.00 0.00 0.00 0.00 0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	0.00 0.00 0.00 0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	Section (usft)  0.00 0.00 0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	Rate (°/100usft)  0.00 0.00 0.00 2.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 0.00 0.0	Rate (°/100usft)  0.00 0.00 0.00 0.00 2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	Rate (°/100usft) 0.00 0.00 0.00 0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
100.00 200.00 300.00 400.00 500.00 550.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	0.00 0.00 0.00 0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	0.00 0.00 0.00 0.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	100.00 200.00 300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.00 0.00 0.00 0.00 0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	0.00 0.00 0.00 0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	0.00 0.00 0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	0.00 0.00 0.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	0.00 0.00 0.00 2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42	0.00 0.00 0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
100.00 200.00 300.00 400.00 500.00 550.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	0.00 0.00 0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	0.00 0.00 0.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	100.00 200.00 300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.00 0.00 0.00 0.87 3.49 5.45 7.47 10.52 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	0.00 0.00 0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	0.00 0.00 0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	0.00 0.00 0.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	0.00 0.00 0.00 2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42	0.00 0.00 0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
200.00 300.00 400.00 500.00 550.00 600.00 700.00 800.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	0.00 0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	0.00 0.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	200.00 300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.00 0.00 0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	0.00 0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	0.00 0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	0.00 0.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	0.00 0.00 2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	0.00 0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
300.00 400.00 500.00 550.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00	0.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.00 0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	0.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	0.00 2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42	0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
300.00 400.00 500.00 550.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	0.00 2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00	0.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	300.00 399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.00 0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	0.00 1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	0.00 1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	0.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	0.00 2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42	0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
400.00 500.00 550.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	2.00 4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	60.00 60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	399.98 499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	0.87 3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	1.51 6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	1.33 5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	2.00 2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 0.00	2.00 2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42	0.00 0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
500.00 550.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	4.00 5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	60.00 60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	499.84 549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	3.49 5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	6.04 9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	5.31 8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	2.00 2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	2.00 2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	0.00 0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
550.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
550.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	5.00 5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	60.00 66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	549.68 599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	5.45 7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	9.44 13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	8.29 11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	2.00 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1	2.00 0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	0.00 13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	5.42 6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	66.89 77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	599.48 698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	7.47 10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	13.50 23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	11.91 21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	0.83 1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	13.78 10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	6.43 7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	77.66 85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	698.94 798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	10.52 12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	23.31 35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	21.00 32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	1.01 1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	10.76 7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
800.00 900.00 1,000.00 1,100.00 1,200.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	7.61 8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	85.31 90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	798.20 897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	12.25 12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	35.37 49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	32.55 46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 1.50 1.50 1.50 0.00	1.18 1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	7.65 5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 1.50 1.50 0.00	1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	8.88 10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	90.85 94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	897.16 995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	12.68 11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	49.69 66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	46.54 62.98 81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 1.50 1.50 0.00	1.27 1.33 1.38 1.40 1.42 1.43 0.00 0.00	5.54 4.13 3.18 2.50 2.02 1.76 0.00 0.00
1,000.00 1,100.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	10.21 11.59 12.99 14.41 15.00 15.00 15.00 15.00	94.99 98.16 100.67 102.69 103.41 103.41 103.41 103.41	995.78 1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	11.80 9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	66.24 85.02 106.01 129.20 139.32 154.19 179.37 204.54	62.98 81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 1.50 0.00 0.00	1.33 1.38 1.40 1.42 1.43 0.00 0.00	4.13 3.18 2.50 2.02 1.76 0.00 0.00
1,100.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	11.59 12.99 14.41 15.00 15.00 15.00 15.00	98.16 100.67 102.69 103.41 103.41 103.41 103.41 103.41	1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	85.02 106.01 129.20 139.32 154.19 179.37 204.54	81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 0.00 0.00	1.38 1.40 1.42 1.43 0.00 0.00	3.18 2.50 2.02 1.76 0.00 0.00
1,100.00 1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	11.59 12.99 14.41 15.00 15.00 15.00 15.00	98.16 100.67 102.69 103.41 103.41 103.41 103.41 103.41	1,093.97 1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	9.60 6.09 1.28 -1.07 -4.61 -10.62 -16.62	85.02 106.01 129.20 139.32 154.19 179.37 204.54	81.84 103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 1.50 0.00 0.00	1.38 1.40 1.42 1.43 0.00 0.00	3.18 2.50 2.02 1.76 0.00 0.00
1,200.00 1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	12.99 14.41 15.00 15.00 15.00 15.00	100.67 102.69 103.41 103.41 103.41 103.41 103.41	1,191.68 1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	6.09 1.28 -1.07 -4.61 -10.62 -16.62	106.01 129.20 139.32 154.19 179.37 204.54	103.12 126.80 137.18 152.45 178.30	1.50 1.50 1.50 0.00 0.00	1.40 1.42 1.43 0.00 0.00	2.50 2.02 1.76 0.00 0.00
1,300.00 1,340.93 1,400.00 1,500.00 1,600.00 1,700.00	14.41 15.00 15.00 15.00 15.00	102.69 103.41 103.41 103.41 103.41 103.41	1,288.83 1,328.42 1,385.47 1,482.07 1,578.66	1.28 -1.07 -4.61 -10.62 -16.62	129.20 139.32 154.19 179.37 204.54	126.80 137.18 152.45 178.30	1.50 1.50 0.00 0.00	1.42 1.43 0.00 0.00	2.02 1.76 0.00 0.00
1,340.93 1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	15.00 15.00 15.00 15.00 15.00	103.41 103.41 103.41 103.41 103.41	1,328.42 1,385.47 1,482.07 1,578.66	-1.07 -4.61 -10.62 -16.62	139.32 154.19 179.37 204.54	137.18 152.45 178.30	1.50 0.00 0.00	1.43 0.00 0.00	1.76 0.00 0.00
1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	15.00 15.00 15.00 15.00	103.41 103.41 103.41 103.41	1,385.47 1,482.07 1,578.66	-4.61 -10.62 -16.62	154.19 179.37 204.54	152.45 178.30	0.00 0.00	0.00 0.00	0.00 0.00
1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	15.00 15.00 15.00 15.00	103.41 103.41 103.41 103.41	1,385.47 1,482.07 1,578.66	-4.61 -10.62 -16.62	154.19 179.37 204.54	152.45 178.30	0.00 0.00	0.00 0.00	0.00 0.00
1,500.00 1,600.00 1,700.00 1,800.00	15.00 15.00 15.00	103.41 103.41 103.41	1,482.07 1,578.66	-10.62 -16.62	179.37 204.54	178.30	0.00	0.00	0.00
1,600.00 1,700.00 1,800.00	15.00 15.00	103.41 103.41	1,578.66	-16.62	204.54				
1,600.00 1,700.00 1,800.00	15.00 15.00	103.41 103.41	1,578.66	-16.62	204.54				
1,700.00 1,800.00	15.00	103.41						0.00	
1,800.00			1,675.25	22.62				0.00	0.00
	15.00			-22.02	229.72	229.99	0.00	0.00	0.00
	15.00	102 11	1.771.84	20.62	254.00	255.04	0.00	0.00	0.00
1,900.00		103.41	, -	-28.62	254.90	255.84	0.00	0.00	0.00
.,000.00	15.00	103.41	1,868.44	-34.62	280.07	281.69	0.00	0.00	0.00
2,000.00	15.00	103.41	1,965.03	-40.62	305.25	307.54	0.00	0.00	0.00
2,100.00	15.00	103.41	2,061.62	-46.62	330.43	333.39	0.00	0.00	0.00
2,200.00	15.00	103.41	2,158.22	-52.62	355.60	359.24	0.00	0.00	0.00
2,300.00	15.00	103.41	2,254.81	-58.62	380.78	385.09	0.00	0.00	0.00
2,400.00	15.00	103.41	2,351.40	-64.62	405.96	410.94	0.00	0.00	0.00
2,444.61	15.00	103.41	2,394.49	-67.30	417.19	422.47	0.00	0.00	0.00
2,500.00	14.45	103.41	2,448.06	-70.56	430.88	436.53	1.00	-1.00	0.00
2,600.00	13.45	103.41	2,545.11	-76.15	454.33	460.60	1.00	-1.00	0.00
2,000.00									0.00
2,700.00	12.45	103.41	2,642.57	-81.34	476.12	482.97	1.00	-1.00	0.00
2,800.00	11.45	103.41	2,740.40	-86.14	496.25	503.64	1.00	-1.00	0.00
									0.00
2,900.00	10.45	103.41	2,838.58	-90.55	514.72	522.61	1.00	-1.00	
3,000.00	9.45	103.41	2,937.08	-94.55	531.53	539.86	1.00	-1.00	0.00
3,100.00	8.45	103.41	3,035.86	-98.16	546.65	555.39	1.00	-1.00	0.00
		400.44		404.00			4.00	4.00	2.22
3,200.00	7.45	103.41	3,134.90	-101.36	560.10	569.19	1.00	-1.00	0.00
3,300.00	6.45	103.41	3,234.16	-104.16	571.86	581.27	1.00	-1.00	0.00
3,400.00	5.45	103.41	3,333.62	-106.57	581.94	591.62	1.00	-1.00	0.00
3,500.00	4.45	103.41	3,433.25	-108.57	590.33	600.23	1.00	-1.00	0.00
3,600.00	3.45	103.41	3,533.01	-110.16	597.02	607.10	1.00	-1.00	0.00
3,700.00	2.45	103.41	3,632.88	-111.35	602.02	612.23	1.00	-1.00	0.00
3,800.00	1.45	103.41	3,732.82	-112.14	605.32	615.62	1.00	-1.00	0.00
3,900.00	0.45	103.41	3,832.80	-112.52	606.93	617.27	1.00	-1.00	0.00
3,944.61	0.00	0.00	3,877.41	-112.56	607.10	617.45	1.00	-1.00	0.00
4,000.00	0.00	0.00	3,932.80	-112.56	607.10	617.45	0.00	0.00	0.00
7,000.00	0.00	0.00		112.00	007.10	017.70	0.00	0.00	0.00
4,100.00	0.00	0.00	4,032.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,200.00	0.00	0.00	4,132.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,300.00	0.00	0.00	4,232.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,400.00	0.00	0.00	4,332.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,500.00	0.00	0.00	4,432.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,600.00	0.00	0.00	4,532.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,700.00	0.00	0.00	4,632.80	-112.56	607.10	617.45	0.00	0.00	0.00
4,800.00	0.00	0.00	4,732.80	-112.56	607.10	617.45	0.00	0.00	0.00

#### **EOG** Resources, Inc.

Planning Report

Database: edm

Well:

Company: Denver Division - Utah

Project: T9S-R22E Sec 24 Site:

CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9) 1515-24D

Wellbore: Wellbore #1 Design: APD Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** 

Well 1515-24D

RIG @ 5046.99usft (True 34) RIG @ 5046.99usft (True 34)

True

Minimum Curvature

Measured   Depth   Inclination   Azimuth   Cyrtical   Depth   (usft)   (u	
Depth (usft)	
5,000.00         0.00         4,932.80         -112.56         607.10         617.45         0.00         0.00           5,100.00         0.00         0.00         5,032.80         -112.56         607.10         617.45         0.00         0.00           5,200.00         0.00         0.00         5,132.80         -112.56         607.10         617.45         0.00         0.00           5,300.00         0.00         0.00         5,232.80         -112.56         607.10         617.45         0.00         0.00           5,400.00         0.00         0.00         5,332.80         -112.56         607.10         617.45         0.00         0.00           5,600.00         0.00         0.00         5,532.80         -112.56         607.10         617.45         0.00         0.00           5,700.00         0.00         0.00         5,532.80         -112.56         607.10         617.45         0.00         0.00           5,800.00         0.00         0.00         5,732.80         -112.56         607.10         617.45         0.00         0.00           6,000.00         0.00         0.00         5,832.80         -112.56         607.10         617.45         0.00 <t< th=""><th>te</th></t<>	te
5,200.00         0.00         0.00         5,132.80         -112.56         607.10         617.45         0.00         0.00           5,300.00         0.00         0.00         5,232.80         -112.56         607.10         617.45         0.00         0.00           5,500.00         0.00         0.00         5,332.80         -112.56         607.10         617.45         0.00         0.00           5,600.00         0.00         0.00         5,532.80         -112.56         607.10         617.45         0.00         0.00           5,600.00         0.00         0.00         5,532.80         -112.56         607.10         617.45         0.00         0.00           5,800.00         0.00         0.00         5,632.80         -112.56         607.10         617.45         0.00         0.00           5,800.00         0.00         0.00         5,732.80         -112.56         607.10         617.45         0.00         0.00           5,900.00         0.00         0.00         5,832.80         -112.56         607.10         617.45         0.00         0.00           6,100.00         0.00         0.00         6,032.80         -112.56         607.10         617.45 <t< td=""><td>0.00 0.00</td></t<>	0.00 0.00
5,400.00         0.00         0.00         5,332.80         -112.56         607.10         617.45         0.00         0.00           5,500.00         0.00         0.00         5,432.80         -112.56         607.10         617.45         0.00         0.00           5,600.00         0.00         0.00         5,532.80         -112.56         607.10         617.45         0.00         0.00           5,700.00         0.00         0.00         5,632.80         -112.56         607.10         617.45         0.00         0.00           5,800.00         0.00         0.00         5,732.80         -112.56         607.10         617.45         0.00         0.00           5,900.00         0.00         0.00         5,832.80         -112.56         607.10         617.45         0.00         0.00           6,000.00         0.00         0.00         5,832.80         -112.56         607.10         617.45         0.00         0.00           6,100.00         0.00         0.00         6,032.80         -112.56         607.10         617.45         0.00         0.00           6,200.00         0.00         0.00         6,322.80         -112.56         607.10         617.45 <t< td=""><td>0.00 0.00 0.00</td></t<>	0.00 0.00 0.00
5,700.00         0.00         0.00         5,632.80         -112.56         607.10         617.45         0.00         0.00           5,800.00         0.00         0.00         5,732.80         -112.56         607.10         617.45         0.00         0.00           5,900.00         0.00         0.00         5,832.80         -112.56         607.10         617.45         0.00         0.00           6,000.00         0.00         0.00         5,932.80         -112.56         607.10         617.45         0.00         0.00           6,100.00         0.00         0.00         6,032.80         -112.56         607.10         617.45         0.00         0.00           6,200.00         0.00         0.00         6,132.80         -112.56         607.10         617.45         0.00         0.00           6,300.00         0.00         0.00         6,232.80         -112.56         607.10         617.45         0.00         0.00           6,400.00         0.00         0.00         6,332.80         -112.56         607.10         617.45         0.00         0.00           6,500.00         0.00         0.00         6,532.80         -112.56         607.10         617.45 <t< td=""><td>0.00</td></t<>	0.00
5,900.00         0.00         5,832.80         -112.56         607.10         617.45         0.00         0.00           6,000.00         0.00         0.00         5,932.80         -112.56         607.10         617.45         0.00         0.00           6,100.00         0.00         0.00         6,032.80         -112.56         607.10         617.45         0.00         0.00           6,200.00         0.00         0.00         6,132.80         -112.56         607.10         617.45         0.00         0.00           6,300.00         0.00         0.00         6,232.80         -112.56         607.10         617.45         0.00         0.00           6,400.00         0.00         0.00         6,332.80         -112.56         607.10         617.45         0.00         0.00           6,500.00         0.00         0.00         6,332.80         -112.56         607.10         617.45         0.00         0.00           6,600.00         0.00         0.00         6,432.80         -112.56         607.10         617.45         0.00         0.00           6,700.00         0.00         0.00         6,632.80         -112.56         607.10         617.45         0.00 <t< td=""><td>0.00 0.00 0.00</td></t<>	0.00 0.00 0.00
6,200.00         0.00         0.00         6,132.80         -112.56         607.10         617.45         0.00         0.00           6,300.00         0.00         0.00         6,232.80         -112.56         607.10         617.45         0.00         0.00           6,400.00         0.00         0.00         6,332.80         -112.56         607.10         617.45         0.00         0.00           6,500.00         0.00         0.00         6,432.80         -112.56         607.10         617.45         0.00         0.00           6,600.00         0.00         0.00         6,532.80         -112.56         607.10         617.45         0.00         0.00           6,700.00         0.00         0.00         6,632.80         -112.56         607.10         617.45         0.00         0.00           6,800.00         0.00         0.00         6,732.80         -112.56         607.10         617.45         0.00         0.00           6,900.00         0.00         0.00         6,832.80         -112.56         607.10         617.45         0.00         0.00           7,009.18         0.00         0.00         6,832.80         -112.56         607.10         617.45 <t< td=""><td>0.00</td></t<>	0.00
6,400.00         0.00         0.00         6,332.80         -112.56         607.10         617.45         0.00         0.00           6,500.00         0.00         0.00         6,432.80         -112.56         607.10         617.45         0.00         0.00           6,600.00         0.00         0.00         6,532.80         -112.56         607.10         617.45         0.00         0.00           6,700.00         0.00         0.00         6,632.80         -112.56         607.10         617.45         0.00         0.00           6,800.00         0.00         0.00         6,732.80         -112.56         607.10         617.45         0.00         0.00           6,900.00         0.00         0.00         6,832.80         -112.56         607.10         617.45         0.00         0.00           7,009.18         0.00         0.00         6,941.99         -112.56         607.10         617.45         0.00         0.00           7,100.00         0.00         0.00         7,032.80         -112.56         607.10         617.45         0.00         0.00           7,200.00         0.00         0.00         7,332.80         -112.56         607.10         617.45 <t< td=""><td>0.00 0.00 0.00</td></t<>	0.00 0.00 0.00
6,700.00         0.00         0.00         6,632.80         -112.56         607.10         617.45         0.00         0.00           6,800.00         0.00         0.00         6,732.80         -112.56         607.10         617.45         0.00         0.00           6,900.00         0.00         0.00         6,832.80         -112.56         607.10         617.45         0.00         0.00           7,009.18         0.00         0.00         6,941.99         -112.56         607.10         617.45         0.00         0.00           7,100.00         0.00         0.00         7,032.80         -112.56         607.10         617.45         0.00         0.00           7,200.00         0.00         0.00         7,132.80         -112.56         607.10         617.45         0.00         0.00           7,300.00         0.00         0.00         7,232.80         -112.56         607.10         617.45         0.00         0.00           7,400.00         0.00         0.00         7,332.80         -112.56         607.10         617.45         0.00         0.00           7,500.00         0.00         0.00         7,432.80         -112.56         607.10         617.45 <t< td=""><td>0.00</td></t<>	0.00
6,900.00       0.00       0.00       6,832.80       -112.56       607.10       617.45       0.00       0.00         7,009.18       0.00       0.00       6,941.99       -112.56       607.10       617.45       0.00       0.00         7,100.00       0.00       0.00       7,032.80       -112.56       607.10       617.45       0.00       0.00         7,200.00       0.00       0.00       7,132.80       -112.56       607.10       617.45       0.00       0.00         7,300.00       0.00       0.00       7,232.80       -112.56       607.10       617.45       0.00       0.00         7,400.00       0.00       0.00       7,332.80       -112.56       607.10       617.45       0.00       0.00         7,500.00       0.00       0.00       7,432.80       -112.56       607.10       617.45       0.00       0.00         7,600.00       0.00       0.00       7,532.80       -112.56       607.10       617.45       0.00       0.00	0.00
7,200.00         0.00         0.00         7,132.80         -112.56         607.10         617.45         0.00         0.00           7,300.00         0.00         0.00         7,232.80         -112.56         607.10         617.45         0.00         0.00           7,400.00         0.00         0.00         7,332.80         -112.56         607.10         617.45         0.00         0.00           7,500.00         0.00         0.00         7,432.80         -112.56         607.10         617.45         0.00         0.00           7,600.00         0.00         0.00         7,532.80         -112.56         607.10         617.45         0.00         0.00	0.00 0.00 0.00
7,400.00     0.00     0.00     7,332.80     -112.56     607.10     617.45     0.00     0.00       7,500.00     0.00     0.00     7,432.80     -112.56     607.10     617.45     0.00     0.00       7,600.00     0.00     0.00     7,532.80     -112.56     607.10     617.45     0.00     0.00	0.00
	0.00 0.00 0.00
	0.00
7,800.00     0.00     0.00     7,732.80     -112.56     607.10     617.45     0.00     0.00       7,900.00     0.00     0.00     7,832.80     -112.56     607.10     617.45     0.00     0.00       8,000.00     0.00     0.00     7,932.80     -112.56     607.10     617.45     0.00     0.00	0.00 0.00 0.00
8,100.00     0.00     0.00     8,032.80     -112.56     607.10     617.45     0.00     0.00         8,200.00       0.00       0.00       8,132.80       -112.56       607.10       617.45       0.00       0.00	0.00
8,300.00       0.00       0.00       8,232.80       -112.56       607.10       617.45       0.00       0.00       0.00         8,400.00       0.00       0.00       8,332.80       -112.56       607.10       617.45       0.00       0.00         8,500.00       0.00       0.00       8,432.80       -112.56       607.10       617.45       0.00       0.00	0.00 0.00 0.00
8,600.00     0.00     0.00     8,532.80     -112.56     607.10     617.45     0.00     0.00         8,700.00       0.00       0.00       8,632.80       -112.56       607.10       617.45       0.00       0.00	0.00
8,800.00       0.00       0.00       8,732.80       -112.56       607.10       617.45       0.00       0.00       0.00         8,900.00       0.00       0.00       8,832.80       -112.56       607.10       617.45       0.00       0.00         9,000.00       0.00       8,932.80       -112.56       607.10       617.45       0.00       0.00	0.00 0.00 0.00
9,100.00     0.00     0.00     9,032.80     -112.56     607.10     617.45     0.00     0.00       9,200.00     0.00     0.00     9,132.80     -112.56     607.10     617.45     0.00     0.00	0.00 0.00
9,300.00     0.00     0.00     9,232.80     -112.56     607.10     617.45     0.00     0.00       9,400.00     0.00     0.00     9,332.80     -112.56     607.10     617.45     0.00     0.00       9,412.18     0.00     0.00     9,344.98     -112.56     607.10     617.45     0.00     0.00	0.00

#### **EOG** Resources, Inc.

Planning Report

Database: edm

Company: Denver Division - Utah
Project: T9S-R22E Sec 24

Project: Site:

CWU 1515-1520 24D (Pad B4\_CWU

929-24\_Set 9) 1515-24D

Well: 1515-24D
Wellbore: Wellbore #1
Design: APD Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well 1515-24D

RIG @ 5046.99usft (True 34) RIG @ 5046.99usft (True 34)

True

Minimum Curvature

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CWU 1515-24D - plan hits target cent - Circle (radius 50.00		0.00	6,941.99	-112.56	607.10	-108,364.25	2,591,676.11	40° 0' 58.208 N	109° 23' 16.238 W

Sundry Number: 26359 API Well Number: 43047509560000

	STATE OF UTAH		FORM 9	
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU0282			
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: CHAPITA WELLS	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: CWU 1516-24D	
2. NAME OF OPERATOR: EOG Resources, Inc.			<b>9. API NUMBER:</b> 43047509560000	
3. ADDRESS OF OPERATOR: 600 17th Street, Suite 1000	0 N , Denver, CO, 80202	PHONE NUMBER: 435 781-9111 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0798 FSL 1972 FWL			COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 24 Township: 09.0S Range: 22.0E Meridi	an: S	STATE: UTAH	
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
7	ACIDIZE	ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME	
6/1/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION	
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK	
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION	
Report Date:			OTHER	
	WILDCAT WELL DETERMINATION	OTHER	OTHER:	
I .	completed operations. Clearly show a nc. respectfully requests the A well be extended for one ye	APD for the referenced	Approved by the Utah Division of Oil, Gas and Mining	
			Date: June 05, 2012	
			By: Daggill	
NAME (PLEASE PRINT)	PHONE NUMB	ER TITLE		
Mickenzie Gates	435 781-9145	Operations Clerk		
SIGNATURE N/A		<b>DATE</b> 6/4/2012		

Sundry Number: 26359 API Well Number: 43047509560000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047509560000

API: 43047509560000 Well Name: CWU 1516-24D

Location: 0798 FSL 1972 FWL QTR SESW SEC 24 TWNP 090S RNG 220E MER S

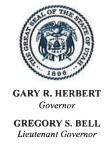
Company Permit Issued to: EOG RESOURCES, INC.

**Date Original Permit Issued:** 6/1/2010

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting
requirements for this location? ( Yes ( No
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes</li> <li>No</li> </ul>
• Has the approved source of water for drilling changed? 🔘 Yes 📵 No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well? <a> Yes</a> No
nature: Mickenzie Gates Date: 6/4/2012

Title: Operations Clerk Representing: EOG RESOURCES, INC.



## State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 8, 2013

EOG Resources, Inc. 600 17<sup>th</sup> Street, Suite 1000 N. Denver, CO 80202

Re: APDs Rescinded for EOG Resources, Inc., Uintah County

Ladies and Gentlemen:

Enclosed find the list of APDs that are being rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective August 8, 2013.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

Environmental Scientist

in Silasn

cc: W

Well File

Bureau of Land Management, Vernal



43-047-50352	CWU 4038-34
43-047-50353	CWU 4039-34
43-047-50354	CWU 4037-34
43-047-50355	CWU 4036-34
43-047-50445	CWU 4034-34
43-047-50456	CWU 783-24
43-047-50955	CWU 1515-24D
43-047-50956	CWU 1516-24D
43-047-50957	CWU 1517-24D
43-047-50958	CWU 1518-24D
43-047-50959	CWU 1519-24D
43-047-50961	CWU 1521-24D
43-047-50962	CWU 1522-24D
43-047-50963	CWU 1523-24D



### **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT
Green River District
Vernal Field Office
170 South 500 East
Vernal, UT 84078
http://www.blm.gov/ut/st/en/fo/vernal.html



FEB 28 2014

IN REPLY REFER TO: 3160 (UTG011)

Kaylene Gardner EOG Resources, Inc. 600 17TH STREET, SUITE 1000 N DENVER, CO 80202

Re:

Notice of Expiration
Well No. CWU 1516-24D
SESW, Sec. 24, T9S, R22E
Uintah County, Utah
Lease No. UTU-0282
Chapita Wells Unit

43 047 50956

RECEIVED
MAR 1 2 2014

DIV. OF OIL, GAS & MITTING

Dear Ms. Gardner:

The Application for Permit to Drill (APD) for the above-referenced well was approved on July 26, 2011. No extension of the original APD was requested. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced application has expired. If you intend to drill at this location in the future, a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

If you have any questions regarding this matter, please contact Robin R. Hansen at (435) 781-3428.

Sincerely,

/s/ Jerry Kenczka

Jerry Kenczka Assistant Field Manager Lands & Mineral Resources

CC:

**UDOGM** 

bcc:

Well File

I&E Asst.